then the fallacy of *anupasaṃhārī-vyabhicāra* will occur. Let us consider the following two examples.

(i) Everything is non-eternal, because of knowability.
(ii) Everything is nameable, because of knowability.

In both (i) and (ii) everything is the locus of inference. There is doubt about the presence of non-eternality in (i) and nameability in (ii). Since everything is *pakṣa*, there is no *sapakṣa* or *vipakṣa*. Since the co-presence of the probans and the probandum cannot be observed, the agreement in presence type of invariable concomitance cannot be cognised. Similarly, since the co-absence of the probans and the probandum cannot be observed, the agreement in absence type of invariable concomitance cannot be cognised. Since neither type of invariable concomitance is cognised, neither the agreement in presence nor the agreement in absence type of operation will occur. Hence this type of fallacy prevents the occurrence of any type of operation which is necessary for an inferential cognition. Since there is neither *sapkṣa* nor *vipakṣa*, the probans lacks both the property of being present in *sapakṣa* and the property of being absent from *vipakṣa*.

As regards the nature of this fallacy, it is not logical, but epistemological. If a person does not have doubt about the presence of the probandum in everything, then this epistemic defect can be removed. From the observation of the co-presence of the probans and the probandum and the non-observation of deviation, one will have the cognition of the invariable concomitance between them. In (i), if everything ceases to be *pakṣa*, then the cognition of the invariable concomitance may be possible on the basis of the observation of co-presence and non-observation of deviation. But this cognition will be false as there are eternal objects such as space and time which are knowable in the Nyāya system. Hence there will be another type of fallacy.

In (ii) if everything ceases to be *pakṣa*, then the cognition of the invariable concomitance between knowability and nameability will be possible from the observation of co-presence and the non-observation of deviation. Moreover, the cognition of invariable concomitance will be true as the invariable concomitance holds good in the Nyāya system, and the inference will be valid.

From the above discussion it follows that this type of defect can also be removed. Hence it is also epistemological, not logical. It is due to the fact that the person in question has doubt about everything and as a result he cannot cognise the invariable concomitance. This type of defect will last so long as there is doubt about the presence of the probandum in everything.

From the above discussion of three types of fallacies of deviation, it follows that the last two are epistemic and hence impermanent, but the first one is logical and hence permanent. But all of them are opposed to the cognition of the invariable concomitance although not in the same way. Moreover, all of them are infected with the fallacy of deviation, but not in the same way. The probans of the first one occurs in the locus of the absence of the probandum, and it is *vyabhicārī* (deviating) in this sense. But the probantia of the other two types are not *vyabhicārī* (deviating) in this sense. The probans of the second type is *vyabhicārī* (deviating) in the sense that it does not reside in the locus of the probandum i.e., *sapakṣa*. The probans of the third type is *vyabhicārī* (deviating) in the sense that there is neither *sapakṣa* nor *vipakṣa*. Since there is neither *sapakṣa* nor *vipakṣa*, the cognition of the co-presence of the probans with the probandum or the cognition of the co-absence of the probans with the probandum is not possible. Hence the cognition of any type of invariable concomitance is not possible so long as this defect remains. In spite of these senses of the word '*vyabhicāra*' ('deviation'), all the three types of deviation have one thing in common. Each of them refers to the object of a true cognition which is opposed either to the cognition of the agreement in presence type of invariable concomitance or to the cognition of the agreement in absence type of invariable concomitance.

3. *viruddha* (opposed): If the probans is pervaded by the absence of the probandum, the probans is called '*viruddha-hetu*' ('opposed probans'). Hence the invariable concomitance would be between the probans and the absence of the probandum, not between the probans and the probandum. In other words, wherever the probans is present, the probandum is absent. For example, sound is eternal, because of the property of being an effect. Since an effect is non-eternal, the probans, far from establishing the probandum, establishes the absence of the probandum.

In the case of *viruddha* fallacy, the probans lacks the property of being present in *sapakṣa* and the property of being absent from *vipakṣa*. In other words, it is absent from the loci of the probandum, but is present where the probandum is absent. Hence the agreement in presence (*anvya-sahacāra*) and agreement in absence (*vyatireka-sahacāra*) cannot be observed. From this it follows that neither the invariable concomitance in presence nor the invariable concomitance in absence can be cognised. Moreover, since both the types of invariable concomitance are false, the defect would be the falsity of the invariable concomitances. Hence the cognition of this defect will be opposed to the cognition of both the types of invariable concomitance and thereby both the types of operation. It is also opposed to the inferential cognition. Since it is a permanent defect, it may be called 'logical fallacy.'

4. *satpratipakṣa* (existence of counter-thesis): The word '*satpratipakṣa*' has two meanings. It may mean either the thesis of the opponent or a type of defect (*doṣa*) which will prevent an inferential cognition. In the context of a debate it simply means the thesis of one's opponent, which tries to establish the opposite conclusion. Hence there would be two operations so that two opposite conclusions can be established. The operation of the proponent has the form:

   a) *p* has *h* which is pervaded by *s*, but the operation of the opponent takes the form:

   b) *p* has counter-*h* (different from *h*) which is pervaded by the absence of *s*.

Since the opponent uses a counter-probans, the word '*satpratipakṣa*,' in a debate, refers to the probans of the operation of the opponent. The opponent tries to establish the conclusion *p* has absence of *s*, which is the contradictory of the conclusion of the proponent. The operations of both the proponent and the opponent may be false, but the conclusions of both of them cannot be false as they are contradictories. Let us consider the following operations of the proponent and the opponent respectively.

   c) The lake has smoke which is pervaded by fire.
   d) The lake has light (counter-probans) which is pervaded by the absence of fire.

The proponent will deduce the conclusion 'The lake has fire,' and the opponent the conclusion 'The lake has absence of fire.' Since the opponent uses a counter-probans to establish the absence of the probandum in the same locus, there is a *satpratipakṣa*. If the opponent uses the probans of the proponent, then it will not be an example of *satpratipakṣa*. For example,

   e) The lake has smoke which is pervaded by the absence of fire. Hence from the very definition of *satpratipakṣa* it follows that the probans of the opponent is different from that of the proponent.

Now let us consider what happens to those who remain non-committal to the thesis of the proponent or the opponent. In our above examples, both c) and d) will generate cognitions in those who are not committed to either of the conclusions. But the operation c) will prevent the occurrence of the inferential cognition which is due to d), and the operation d) will prevent the occurrence of the inferential

cognition which is due to c). Hence we cannot say that these two operations are mutually opposed to each other in the sense that the cognition of c) will prevent the cognition of d) and *vice versa*. But the very existence of *satpratipakṣa* is opposed to the inferential cognitions among the non-committals.

There is another use of the word '*satpratipakṣa*' which identifies a *satpratipakṣa* with a fallacy (*satpratipakṣa doṣa*).

It is to be remembered that a fallacy or a defect (*doṣa*) is the object of a true cognition which is opposed to the occurrence of the operation or the inferential cognition. In our above examples, neither the object of the operation c) nor the object of the operation d) is a defect (*doṣa*), because both the cognitions are false. An example of this type of defect would be the object of a true cognition such as

f) The lake has water which is pervaded by the absence of fire. Therefore, the defect will be the object of any true operation which has the same locus (*pakṣa*) as c) and the counter-probans of this operation is pervaded by the absence of fire.

The operation f) will prevent the occurrence of the inferential cognition 'The lake has fire' which is due to the operation c). Since the object of the operation f) is the defect, the probans of c) will be infected with this defect. Since there is a counter-probans which is pervaded by the absence of fire, the probans of c) lacks the property *asatpratipakṣatva* (the property of not having a counter-probans which is pervaded by the absence of the probandum). But the probans of the opponent used in d) is not infected with this defect as it is also pervaded by the absence of fire. It commits the fallacy of *svarūpāsiddha* (unestablished in the locus). Hence the probans of c) only commits the fallacy of *satpratipakṣa*. But the defect called '*satpratipakṣa doṣa*' is not the object of either c) or d). If the opponent would have used the operation f) instead of the operation d), then f) would have been a *satpratipakṣa*, the object of f) would have been the defect, and the probans of c) would have been infected with this defect. Similarly, the inferential cognition from c) would be prevented by any other operation, the object of which is a *satpratipakṣa* defect.

It may also be noted that whenever there is a fallacy of *satpratipkṣa*, there are other fallacies as well. In the example above, c) commits the fallacy of *svarūpāsiddha* (unestablished in the locus) and *bādha* (absence of the probandum characterising the locus). If a person does not know that the locus is characterised by the absence of the probans and also does not know that the locus is characterised by the absence of the probandum, then also his inferential cognition can be prevented by a true operation the object of which is a defect of *satpratipakṣa*. The fallacy of *satpratipakṣa* is a logical one. Since it does not depend upon the epistemic attitude of the agent, the Nyāya calls it a 'permanent defect' ('*nitya doṣa*').

5. *badha* (absence of the probandum characterising the locus): The fallacy of *bādha* occurs when a probans is used to establish a probandum in a locus which is characterised by the absence of the probandum. For example, Fire is cold, because of substancehood, as in water.

In the case of a *bādha* fallacy the inferential cognition is directly prevented by the cognition of the absence of the probandum in the locus. In the above example, the operation is the cognition expressed by the sentence 'Fire has substancehood which is pervaded by coldness.' This operation will yield the cognition 'Fire is cold. But the cognition 'Fire has absence of coldness' will prevent the occurrence of the inferential cognition. Since the preventer cognition is true, its object is the defect (*doṣa*). Hence the cognition of *badha* fallacy is directly opposed to the inferential cognition.

In the example above, the preventer cognition may be due to direct perception of fire through our sense organs. Since the Nyāya accepts four sources of valid cognition, a preventer cognition may be derived from perception, comparison, verbal testimony, or some other inference.

It may also be noted that whenever there is a *bādha* fallacy, some other fallacy such as *vyabhicāra* (deviation) or *svarūpāsiddha* (unestablished probans in the locus) is also involved. But these fallacies are not directly opposed to the inferential cognition. Hence if someone does not have the cognition of other fallacies in connection with this type of inference, then the inferential cognition will be prevented by the cognition of the *bādha* fallacy i.e., the knowledge that the locus lacks the probandum. Since this type of fallacy does not depend on the epistemic attitude, it is also a permanent defect. From the Nyāya discussion of different types of fallacies it follows that the Nyāya philosophers are dealing not only with the falsity of the premise(s) or the conclusion of a fallacious inference but also with the different ways the operation or the inferential cognition of an inference can be prevented.

20 In this inference the locus (*pakṣa*) is the present cognition of a particular person, the probans (*hetu*) is the property of being a cognition, and the probandum (*sādhya*) is the property of being independent of another cognition of the same person for the use of the same cognition by the same person.

21 *Vyabhicāra* is another type of fallacy. In this case there is a deviation from the rule of invariable concomitance. In other words, if we come across a case where the probans is present but not the probandum, then the inference suffers from the fallacy of *vyabhicāra* and the probans is *vyabhicārī*.

22 In order to avoid the fallacy of *vyabhicāra* it may be said that the probans is not the property of being a cognition, but the property of being the present cognition of a particular person. The locus of inference (*pakṣa*) and the probandum (*sādhya*) would remain the same.

But this move would not be acceptable to the Nyāya philosophers. On this interpretation there will not be any difference between the probans and the limitor of the property of being the locus of the inference (*pakṣatāvacchedaka*), because the locus of the inference is the present cognition of a particular person. As a result, the application (*upanaya-vākya*) will contain the expression 'the present cognition of a particular person has the property of being the present cognition of a particular person.' The limitor of the property of being the locus will be the property of being the present cognition of a particular person. Hence it has the form '*x* which is present under the mode *F* has *F*.'

According to the Nyāya theory of understanding the meaning of a sentence, this form of tautology does not generate a cognition in a hearer or a speaker. Hence the application which is a premise of this inference will not generate any cognition. As a result, the operation (*parāmarśa*) will not take place. So the inferential cognition which is causally dependent on the operation will not take place.

23 This remark of the author needs some explanation. Here the author is talking about the causal conditions of the terms of an inferential cognition. The operation (*parāmarśa*) is a causal condition of the inferential cognition and it has the form '*p* has *h* which is pervaded by *s*,' where *p* is the locus or the subject of the inference, *h* is the probans and *s* is the probandum. *h* is the pervaded (*vyāpya*), *s* is the pervader (*vyāpaka*), and there is a pervader-pervaded relation between them. In other words, *h* is pervaded by *s*, or *s* pervades *h*. Hence *h* has the relational property of being the pervaded (*vyāpyatva*), and *s* has the relational property of being the pervader (*vyāpakatva*). *s* is the qualificand and the property of being the pervader (*vyāpakatva*) is its qualifier. The qualificand-qualifier relation is an epistemic relation between the objects of a cognition and is analogous to the subject-predicate relation between the terms of a sentence at linguistic level.

Since *s* is the qualificand, it has the relational property of being the qualificand (*viśeṣyatā*), and since the property of being the pervader (*vyāpakatva*) is its qualifier, it has the property of being the qualifier (*prakāratā*). Again, these two properties, viz., the property of being the qualificand and the property of being the qualifier, determine each other. In other words, they are correlative properties. Here the author is talking about the property of being the qualificand residing in *s* and its role. This property is a causal condition of the property of being the object (i.e., the relation of a cognition to *s*) which is known as the property of being the probandum (*sādhyatā*) in an inferential cognition. Hence the author is explaining the causal conditions of the relation of an inferential cognition to its objects.

24 Here the author uses the expression 'the property of being the property-possessor' ('*dharmitva*') which refers to a relational property corresponding to the relation of a cognition to its object. Hence it is an epistemic relational property. This property is also known as 'the property of being the object residing in the property-possessor' ('*dharmī-niṣṭha-viṣayatā*' or 'the property of being the qualificand residing in the property-possessor' ('*dharmī-niṣṭha-viśeṣyatā*).

25 Here the author has pointed out the causal condition of the relation of the inferential cognition to its subject. Hence he is talking about the locus (*pakṣa*) which has occurred in an operation. In an operation of the form '*p* has *h* which is pervaded by *s*,' *p* is the locus of inference (*pakṣa*). Since *h* which is pervaded by *s* resides in *p*, it is a property of *p*. Therefore, *p* becomes the property-possessor (*dharmī*).

In an operation the cognition is related to *p* which is the locus of the inference. Hence *p* is characterised by an epistemic relational property (*viṣayatā*). This relational property of *p* is a causal condition of the property of being the subject (*uddeśyatā*) residing in the subject of the inferential cognition (*anumiti*).

In this context it is to be noted that the author uses the term 'subject' ('*uddeśya*') instead of 'qualificand' ('*viśeṣya*') to refer to the subject of the inferential cognition. The pair of terms 'subject' ('*uddeśya*') and 'predicate' ('*vidheya*') cannot be equated with the pair 'qualificand' ('*viśeṣya*') and 'qualifier' ('*viśeṣaṇa*') in the context of an inferential cognition, although both the pairs are used to talk about the objects of cognition and refer to correlatives. The terms 'qualificand' and 'qualifier' are used to talk about a cognition which has the form '*aRb*,' but the terms 'subject' and 'predicate' are being used to talk about the objects of an inferential cognition. The 'predicate' refers to what is being inferred or what is to be inferred, and the 'subject' refers to where it is being inferred. In our above form *s* is what is being inferred and *p* is the locus of the inference of *s*.

The inferential cognition may take either of the two forms:

a) *p* has *s*
b) *s* is present in *p* (or *s* is in *p*).

In a) the qualificand is *p* and the qualifier is *s*. In b) the qualificand is *s* and the qualifier is *p*. But the subject and predicate of a) would be the same as the subject and the predicate of b). Since *s* is being inferred in both cases, it remains the predicate in both the cases. Similarly, since *p* is the locus where *s* is being inferred, it remains the subject both in a) and b). Hence in an inferential cognition of the form a), *p* will have the property of being the subject (*uddeśyatā*) and the property of being the qualificand (*viśeṣyatā*), and *s* will have the property of being the predicate (*vidheyatā*) and, the property of being the qualifier (*viśeṣaṇatā*). But in b), *s* will have the property of being the predicate (*vidheyatā*) and the property of being the qualificand (*viśeṣyatā*), and *p* will have the property of being the subject (*uddeśyatā*) and the property of being the qualifier (*viśeṣaṇatā*). Therefore, in order to emphasise the inferential aspect of the cognition, the author uses the term 'subject' which is the correlative of predicate.'

26 Here the author is talking about the causal conditions of cognising the meaning

of a sentence or a complex expression. It is to be noted that according to the Nyāya theory of a sentence, any complex or non-atomic well-formed expression is a sentence. Hence expressions, such as 'cooks,' 'cooks rice,' 'a king,' 'the king of France,' etc., are treated as sentences. Moreover, the meaning of a complex expression cannot be identified with the meanings of its parts. Similarly, understanding the meaning of a complex expression cannot be identified with understanding the meanings of its parts. The meaning of a complex expression such as 'a red flower' lies in the relation of a red colour to a flower and understanding the meaning of this expression as distinct from knowing the meanings of its parts lies in cognising this relation. Hence the relation between the referents of the two parts is important for both meaning and understanding the meaning.

In the case of a false sentence, the relation does not hold between the referents of its parts, but nonetheless the relation which is cognised at the level of understanding the meaning is real elsewhere or elsewhen. In understanding the meaning of a true sentence the relation which holds good is being cognised. Hence in understanding the meaning of 'the king of Spain' the rulership relation which holds good is being cognised, but in understanding the meaning of 'the King of France' the rulership relation which is cognised does not hold between the king and France, although it is real elsewhere, and has been cognised elsewhere or elsewhen. Therefore, the Nyāya explanation of understanding a false sentence does not involve any reference to an unreal entity.

In this context the author is talking about the way the objects become the objects of cognition when we understand the meaning of a sentence. Here the objects of understanding would be at least two entities and a relation. Each of the objects including the relation will have a separate property of being the object (*viṣayatā*). So the property of being the object residing in the qualificand is called 'the property of being the qualificand' ('*viśeṣyatā*'), the property of being the object residing in the qualifier is called 'the property of being the qualifier' (*prakāratā*'), and the property of being the object residing in the relation of the qualifier to the qualificand is called 'the property of being the relation' ('*saṃsargatā*'). Here the author has pointed out the causal conditions of these properties of being the object.

In order to explain this point let us consider the meaning of an atomic expression such as 'pot' and a sentence in which it occurs such as 'A pot has a red colour.' An atomic expression such as 'pot,' according to the Nyāya, refers to an entity which is included in its ontology. Hence the word 'pot' refers to a pot, and the relation between them is called 'referent – referring' ('*vācya-vācaka*'). Since the Nyāya emphasises the direction of the relation, the relation of a word to its referent is called 'the property of being the referent' ('*vācyatva*'), and the converse of this relation is called 'the property of being the referring' ('*vācakatva*'). Since *vācyatva* is a relational property of a pot in the cognition that a pot is the referent of 'pot,' a pot becomes the qualificand and this relational property becomes its qualifier. Therefore, when the word 'pot' is uttered in the sentence 'A pot has a red colour,' the pot which is cognised has the property of being the qualificand and the property of being the referent (*vācyatva*) residing in this pot has the property of being the qualifier. Since the property of being the qualificand and the property of being the qualifier are correlatives, they are related to each other by the determiner-determined relation (*nirūpya-nirūpaka-sambandha*). The property of being the referent is a causal condition of the property of being the object (*viṣayatā*) which resides in the object of a cognition when we understand the meaning of a sentence. Thus, a pot becomes the object when we understand the sentence 'A pot has a red colour.'

Similarly, a red colour also becomes the object of a cognition when we understand the meaning of this sentence. The property of being the object residing in the red colour is due to the property of being the referent residing in it, and the property of being the referent is due to the relation of the word 'red' to a red colour. This is

how both a pot and a red colour become objects when we understand the sentence 'A pot has a red colour.' Since the pot is the qualificand and the red colour is a qualifier in this cognition, the pot has the property of being the qualificand and the red colour has the property of being the qualifier. Now the causal condition for the difference between these properties is to be stated. The Nyāya claims that this is due to the successor-predecessor relation between the words which have occurred in the sentence 'A pot has a red colour.'

It is also to be noted that this cognition contains not only a pot and a red colour as its objects, but also a relation of a red colour to a pot. Hence this relation also has the property of being the object (*saṃsargatā*). According to the Nyāya, the cognition of the syntactic expectancy (*ākāṅkṣā*) between the words a pot' and 'a red colour' is a causal condition of the property of being the object which resides in the relation of a red colour to a pot. The meaning of this sentence as distinct from the meanings of its parts lies in this relation which is due to syntactic expectancy or revealed by syntactic expectancy (*ākāṅkṣā-bhāsya*).

In this discussion the author has pointed out how the same object can be cognised in different ways such as perception, inference and testimony (or verbal cognition). He has also pointed out how the difference between them is to be explained in terms of their causal conditions.

In this context it may also be noted that the Nyāya philosophers have used the following pairs of terms to characterise the relations of a cognition to its objects:

1. *viśeṣya-viśeṣaṇa* (qualificand-qualifier)
2. *viśeṣya-prakāra* (qualificand-relational qualifier)
3. *pakṣa-sādhya* (locus of inference – probandum)
4. *uddeśya-vidheya* (subject of inferential cognition – predicate)

The qualificand-qualifier (*viśeṣya-viśeṣaṇa*) distinction is applicable to every qualificative or relational cognition (*savikalpaka-jñāna*). A qualificative cognition has the form *aRb*, where *a* is the qualificand, *b* is the qualifier and *R* is the qualification relation which relates *b* to *a*. Hence *a* has the property of being the qualificand (*viśeṣyatā*) and *b* has the property of being the qualifier (*viśeṣaṇatā*). Let us consider the cognitions expressed by the following sentences:

a) A fire is on the mountain.
b) The mountain has a fire.

In a) *a fire* is the qualificand and *the mountain* is the qualifier, while in b) *the mountain* is the qualificand and *a fire* is the qualifier. Since in a) a particular fire is distinguished from other fires in terms of the mountain, the mountain is the qualifier, and since a fire is being distinguished from other fires, it is the qualificand of this cognition. Hence the fire of this cognition has the property of being the qualificand and the mountain has the property of being the qualifier. These relational properties are used to characterise the roles of these objects in this cognition.

In b) a fire is being used to distinguish the mountain from other mountains. Hence it is the qualifier of this cognition. Since this mountain is distinguished from other mountains, it is the qualificand. The property of being the qualificand residing in the qualificand and the property of being the qualifier residing in the qualifier are related to each other by the determiner-determined relation (*nirūpya-nirūpaka-sambandha*) which holds between correlative terms. The category of qualificand-qualifier emphasises the distinguisher-distinguished aspects of the objects of a qualificative cognition.

In both a) and b) the relation of conjunction (or contact) is the qualification relation. According to the Nyaya, the qualification relation is a mode of presentation of the qualifier, not of the qualificand. Hence in a) the conjunction relation is a mode of presentation of the mountain, but in b) it is a mode of presentation of the fire. In general, if a cognition has the form '*aRb*,' the property of being the qualifier residing

in *b* is limited by the relation *R*. When the qualifier of a cognition is presented under the mode of *R*, it is called '*prakāra*' ('relational qualifier'), and it has the property of being the relational qualifier (*prakāratā*). But this feature of a qualifier cannot be universalised. In other words, we cannot claim that every qualifier is presented under the mode of a relation. According to the Nyāya, when one relation is a qualifier of another relation, the former is simply a qualifier (*viśeṣaṇa*), but not a relational qualifier (*prakāra*). Let us consider the following example: A fire is in a pot and the pot is on the mountain. Suppose the fire is related to the pot by the relation *R*, and the pot is related to the mountain by the relation *S*. Hence the fire is related to the mountain by the relation *R* and *S*. In the cognition of the fire being related to the mountain, the relations *R* and *S* are related by the qualificand-qualifier relation (*viśeṣya-viśeṣaṇa-sambandha*). *R* becomes the qualifier of *S* which is its qualificand. The relation of *R* to *S* is not considered a mode of presentation of *R* which is the qualifier. The Nyāya claims that if the relation becomes the mode of presentation of *R*, then there will be an infinite regress at epistemic level. If *R1* is the relation of *R* to *S* and *R1* becomes the mode of presentation of *R*, then *R1* becomes the qualifier of *R*. Again, the relation of *R1* to *R* becomes the modes of presentation of *R1* and so on.

In order to avoid this type of epistemic regress, the Nyāya claims that a relation which is a qualifier of another relation is simply a qualifier (*viśeṣaṇa*), not a relational qualifier (*prakāra*). But in the case of other qualificative cognitions the same object is both a qualifier and a relational qualifier. Hence in the cognition *aRb*, if *b* is presented under the mode *R*, then *b* will have both the property of being the qualifier (*viśeṣaṇatā*) and the property of being the relational qualifier (*prakāratā*).

The other two pairs of terms are used in the context of an inference. In an inference the locus (*pakṣa*) is something where the probandum (*sādhya*) is to be inferred or established. Hence it is usually characterised by a dubious cognition of the probandum. Some Nyāya philosophers have even defined the locus (*pakṣa*) as something where there is doubt about the presence of the probandum. Hence the property of being the locus (*pakṣatā*) may be defined in terms of the dubious cognition of the presence of the probandum.

In an inferential cognition (*anumiti*) which is the result of an inference, the locus (*pakṣa*) is no longer characterised by a dubious cognition, and the probandum is predicated of it with certainty. In order to emphasise this difference in cognitive attitude, the Nyāya philosophers have introduced the terms '*uddeśya*' ('subject') and '*vidheya*' ('predicate'). An inferential cognition has a subject and a predicate. The subject which is the locus of the inference has the property of being the subject (*uddeśyatā*), but not *pakṣatā* which is defined in terms of the dubious cognition of the presence of the probandum in the locus. In order to illustrate this point let us consider the following inference for others:

Thesis (*pratijñā*): The mountain has a fire.

Reason (*hetu*): Because of smoke.

Example (*udāharaṇa*): Wherever there is smoke, there is fire, as in a kitchen, etc..

Application (*upanaya*): The mountain has smoke which is pervaded by fire.

Conclusion (*nigamana*): Therefore, the mountain has a fire.

According to the Nyāya philosophers these sentences will ultimately give rise to an inferential cognition in the hearer. Initially the hearer will understand the meanings of these sentences, and thereafter he will have a mental cognition (*mānasa-jñāna*) of the operation (*parāmarśa*) which will yield the inferential cognition (*anumiti*). Hence

the operation which is a mental cognition is not generated by external sense-organs or by the causal conditions of indirect cognitions (*parokṣa-jñāna*). The inferential cognition may take either the form of the mountain has a fire or the form of a fire is on the mountain.

In the above inference the mountain is the locus (*pakṣa*), and it has the property of being the locus (*pakṣatā*) which is explained in terms of doubt about the presence of the probandum in it. Hence the mountain becomes the locus of this doubt. Moreover, the mountain is the subject as we are trying to establish the presence of fire on it. Since it is fire which is to be established, it is the predicate of the mountain. For this reason the presence of fire on the mountain is not known to us, although the mountain is already known to us. Hence the subject is already known to us, but not the predicate. Since the mountain is the subject, it has the property of being the subject (*uddeśyatā*). Since the mountain is presented under the mode of mountainhood; it is the limitor of the property of being the subject (*uddeśyatāvacchedaka*). Similarly, mountainhood is also the limitor of the property of being the locus of inference (*pakṣatāvacchedaka*). So the Nyāya has drawn the distinction between the subject (*uddeśya*), the locus of the inference (*pakṣa*), the property of being the subject (*uddeśyatā*), and the property of being the locus of the inference (*pakṣatā*).

In the cognition generated by the thesis (*pratijñā*) of the above inference the mountain is the subject and it has the property of being the subject. It is also something where there is doubt about the presence of the probandum. Hence it is the locus of the inference (*pakṣa*), and has the property of being the locus (*pakṣatā*). Since there is no such doubt in the inferential cognition, the mountain does not have *pakṣatā* in the inferential cognition, although it remains the locus (*pakṣa*) as there was doubt about the presence of the probandum. Since it remains the subject (*uddeśya*), it has the property of being the subject (*uddeśyatā*). Thus the Nyāya philosophers have shown the distinction between the cognition generated by the thesis (*pratijñā*) and the inferential cognition (*anumiti*) which is the result of an inference.

In our above example, if the inferential cognition takes the form 'The mountain has a fire,' then the mountain is the qualificand (*viśeṣya*) of this cognition and hence has the property of being the qualificand (*viśeṣyatā*), and the fire is the qualifier (*viśeṣaṇa*) and hence has the property of being the qualifier (*viśeṣaṇatā*). Since the relation of the fire to the mountain is the mode of presentation of the fire, it is also the relational qualifier (*prakāra*) and hence has the property of being the relational qualifier (*prakāratā*). The fire is also the predicate (*vidheya*) or the probandum (*sādhya*) as it is something which is being established or was not known to be present on the mountain. Hence it has the property of being the predicate (*vidheyatā*) or the property of being the probandum (*sādhyatā*).

If the inferential cognition takes the form 'A fire is on the mountain,' then also the subject (*uddeśya*) and the predicate (*vidheya*), or the locus (*pakṣa*) and the probandum (*sādhya*) of the inferential cognition would remain the same. Hence the mountain is the subject (*uddeśya*) or the locus (*pakṣa*), and the fire is the predicate (*vidheya*), or the probandum (*sādhya*) of this cognition. But the mountain ceases to be the qualificand of this cognition. Since the fire becomes the qualificand (*viśeṣya*), it has the property of being the qualificand (*viśeṣyatā*). Similarly, since the mountain becomes the qualifier (*viśeṣaṇa*), it has the property of being the qualifier (*viśeṣaṇatā*). The relation of the mountain to the fire becomes the mode of presentation of the mountain. Hence the mountain becomes the relational qualifier (*prakāra*) and has the property of being the relational qualifier (*prakāratā*). But the relation between the mountain and the fire has only the property of being the relation (*saṃsargatā*) which relates the cognition to the relation.

The above analysis of the Nyāya shows how a cognition is related to its objects. It also reveals the different ways the same cognition is related to the same object.

Hence this discussion might throw some light on the phenomenological discussion of cognition.

[27] In this paragraph the author has pointed out the causal conditions of the property of being the object (*viṣayatā*) of perceptual, inferential and verbal cognitions. Since analogy (*upamāna*) is also a source of valid cognition according to the Nyāya philosophers, it requires a similar explanation. In an analogical cognition (*upamiti*) we primarily cognise the property of being the referent of an expression (*vācyatva*). Hence it takes the following form:

A) *y* is the referent of '*x*,' where '*x*' is an expression and *y* is its referent.

In this cognition *y* is the qualificand (*viśeṣya*) and hence it has the property of being the qualificand. The property of being the referent of '*x*' (*vācyatva*) is the relational qualifier (*prakāra*). Hence it has the property of being the relational qualifier (*prakāratā*).

An analogical cognition presupposes the cognition of the following sentence:

B) That which is similar to *z* is the referent of '*x*,' where *z* is the referent of the term '*z*' which is different from '*x*,' and the cogniser already knows the referent of '*z*,' but not the referent of '*x*.'

Moreover, an analogical cognition presupposes a perceptual cognition which is described by the following sentence:

C) This is similar to *z*.

In the cognition generated by B), that which is similar to *z* is the qualificand (*viśeṣya*) and the property of being the referent of '*x*' is the relational qualifier (*prakāra*). Hence the former has the property of being the qualificand and the latter the property of being the relational qualifier (*prakāratā*). In the perceptual cognition C), the object indicated by the word 'this' is the qualificand, and the property of being the qualificand is limited by y-ness. Similar-to-*z* is the relational qualifier which has, therefore, the property of being the relational qualifier.

Now we have to point out the causal conditions of the property of being the qualificand (*viśeṣyatā*) and the property of being the relational qualifier (*prakāratā*) of the analogical cognition A). The causal condition of the property of being the qualificand residing in *y* is the property of being the qualificand residing in the perceptual cognition C). The property of being the qualificand of the perceptual cognition is limited by *y*-ness and determined by the property of being the relational qualifier residing in similar-to-*z*. The causal condition of the property of being the relational qualifier residing in the property of being the referent of '*x*' is the property of being the relational qualifier of the cognition generated by B). Hence the verbal cognition B) and the perceptual cognition C) are indispensable for the properties of being the qualificand and the qualifier of the analogical cognition A). Let us illustrate with an example of the Nyāya philosophers:

A′) *Gavaya* is the referent of the word '*Gavaya*'.
B′) That which is similar to a cow is the referent of the word '*Gavaya*'.
C′) This is similar to a cow.

In this example, A′) is the analogical cognition, and it presupposes the understanding of the meaning of the sentence B′) and the perceptual cognition expressed by C′). The property of being the qualificand in C′) and the property of being the qualificand in A′) are limited by the same limitor, but not determined by the same determiner. In this example, both the properties of being the qualificand are limited by gavayaness (*gavayatva*). But the property of being the qualificand of C′) is determined by the property of being the relational qualifier residing in similar-to-a-cow, and the property

of being the qualificand residing in A′) is determined by the property of being the relational qualifier residing in the property of being the referent of '*gavaya*.'

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COGNITION OF COGNITION

PART II

Among the followers of non-self-revealing theory the supporters of the Bhāṭṭa Mīmāṃsā claim that a cognition is inferable. Now we are going to discuss their view in a general way. According to this view a cognition, such as the cognition of a pot, reveals the object pot, but not the cognition of a pot. The cognition of a pot is revealed by an inference. The probans (*hetu*) of a cognition, according to this view, is the property of being cognised (*jñātatā*). When an object such as a pot is revealed, we come to know the pot. Hence the property of being cognised is produced in the object pot, and this is the property of a known object. This property of being cognised is the probans by means of which we infer a cognition (*jñāna*). According to this view the property of being cognised (*jñātatā*) is not the same as the property of being the object (*viṣayata*) of the Nyāya and some other systems who have explained it in terms of the relation between a cognition and its object. For, this type of property of being the object which is cognised cannot be used as a probans to infer a cognition. The cognition of the probans is necessary prior to the inferential cognition. If the cognition of the probans is dependent upon the cognition of the probandum, then we cannot infer the probandum, because the probans cannot be cognised unless the probandum is cognised and the probandum cannot be cognised unless the probans is cognised. If the property of being the object (*viṣayatā*), which is a relation between a cognition and its object, is considered as the probans, then the cognition of the probans is dependent upon the cognition of the probandum which is a cognition in this case and one of the relata of this relational property.[1] In other words, the cognition of the probans is dependent upon the cognition of the probandum, because the cognition of a relation presupposes the cognition of its two relata.[2] For example, we cannot cognise the relation of conjunction between the pot and the floor unless we have

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already cognised the pot and the floor. Here also since the property of being the object is the relation of a cognition to its object, the cognition of it is dependent upon the cognition of this cognition. In other words, the cognition of the probans which is the property of being the object is dependent upon the cognition of the probandum. Since the probandum is inferred from the probans, the cognition of the probandum is dependent upon the cognition of the probans. Again the cognition of the probans is dependent upon the cognition of the probandum. Since these two cognitions are mutually dependent, the inference of the above probandum is not possible. For this reason, according to the Bhāṭṭa theory, the property of being cognised is not a relational entity. It is a property which is due to a cognition, but resides in the cognised object. Another name for it is '*prākaṭya*.' Hence as the cognition of an object such as a pot reveals the pot, the potness which is its class-character and present in it, along with its other qualities, so does it reveal the property of being cognised (*jñātatā*) which is present in the same pot. Therefore the property of being cognised is cognised by the cognition of the object (*viṣaya-jñāna*). This property of being cognised is the probans, by means of which we infer the cognition. In this way the followers of this view try to establish their thesis.

But this argument of the followers of the Bhāṭṭa school of Mīmāṃsā is not acceptable to their opponents. They think that the property of being cognised (or *prākaṭya*) which is claimed to be the product of cognition residing in its object is not amenable to experience (i.e., we cannot apprehend it). If it is said that in a sentence such as 'He cognises a pot,' a pot is the object of the verb, and the verb 'to cognise' (*jñā*) means the action of cognising, then a result is produced in the object which is due to the action. The property of being the object (*karmatva*) has been defined by the Grammarian philosophers as the property of being the locus of the result which is due to an action.[3] When we say 'He is cooking rice,' rice is the object (*karma*) because the softening of rice, which is the result of the act of cooking, occurs in rice. Similarly, when it is said 'He cognises a pot,' a pot is the object. Since a pot is the object of this action, we have to admit some result in the pot which is due to the action of cognising. This result is the property of being cognised (*jñātatā* or *prākaṭya*). In this way, the property of being cognised is to be established.

But the opponents of this view claim that in the case of 'He is cooking rice' we can experience (or apprehend) the result in the object *rice* which is due to the act of cooking, but in the case of 'He cognises a pot' we do not experience any result in the pot which is due to the

act of cognising. An object along with its properties is revealed to us in a valid cognition. But no new property is produced in an object such as a pot when it is cognised. In the case of 'He cognises a pot,' it cannot be said that a pot is *karma* (object) due to the fact that a result which is due to the act of cognising resides in it; because in such cases no result resides in a pot which is due to the act of cognising. On the contrary, in this case, the property of being the object (*karmatva*) is the property of being the object of the act of cognising (*Kriyā-viṣayatava*). If the meaning of a verbal root signifies an object, then its meaning is an action having an object (*saviṣayaka-kriyā*). In the case of an action having an object, the property of being an object (*karmatva*) is nothing but the property of being an object of the action (*kriyā-viṣayatva*). In cases such as cognition (*jñana*), desire (*icchā*), mental effort (*kṛti*), the meaning of a verbal root is an action having an object (*saviṣayaka-kriyā*). Hence in such cases objecthood (*karmatva*) is the property of being the object of an action. Therefore, the object of a cognition is the object of the verb 'to cognise.' Similarly, we have to understand actions such as desire, mental effort, etc.

Now the supporters of the Bhaṭṭa school claim that the use of a thing presupposes our cognition of it. It is not possible to use a thing if it has not been experienced. Hence it may be said that the ability to use a thing is due to our cognition of it, because an unknown thing cannot be used. The result of cognising activity is this property of being able to use an object (*vyavaharayogyata*). In the case of the verb 'to cognise,' the property of being the object (*karmatva*) is the ability to use the object of this verb. Hence the property of being able to use the object is to be treated as the property of being cognised (*jñatata* or *prākaṭya*), and this property is the probans for inferring the cognition.

Now the critics of this view claim that this interpretation also does not have any substance to it. For, there is no harm in identifying the property of being able to use an object with the property of being the object (*viṣayata*) which is nothing but the relation of a cognition to its object. Hence there is no argument for the acceptance of the property of being able to use an object (*vyavaharayogyata*) which is produced by a cognition and which is over and above the property of being the object (*viṣayata*).

Now the upholders of the property of being cognised view might claim that the property of being able to use an object is the same as the property of being the object which is due to a cognition. This property of being the object is the same as the property of being cognised (*jñatata*). This interpretation, however, is not acceptable to their opponents. For,

the property of being the object is the relation of a cognition to its object, and therefore it can never be due to the cognition. If the property of being the object were due to a cognition, then it would occur only after the occurrence of the cognition. This is due to the fact that an effect presupposes the prior existence of its cause. Hence, according to this view, when a cognition is produced, there is no relation between the cognition and its object. Therefore, the objection is that since a cognition at the moment of its origination is not related to any object, it remains objectless at that moment. But there cannot be a cognition devoid of any object. Hence the view that the property of being the object is due to a cognition is not acceptable. Now it may be asked: If the property of being the object is not due to a cognition, then what is its cause? As an answer to this question it has already been said that the causal conditions[4] for the property of being the object are the contact with sense-organs and certain other conditions. The contact with a sense-organ which produces a cognition is causative (*prayojaka*) of the property of being the object. Hence both a cognition and the property of being the object are produced at the same time. For this reason the Nyāya philosophers claim that a cognition and the property of being the object of that cognition are produced simultaneously. Moreover, it has already been said that the property of being the object which is the same as the relation of a cognition to its object cannot be used as a probans to infer a cognition.

Now the supporters of the property of being cognised thesis might claim that even if the property of being cognised (*jñātatā*), which is due to a cognition and resides in the object, cannot be proved by perception or the above-mentioned argument, it can be proved by the following inference.

It has been admitted by many philosophers including the Nyāya philosophers that numbers such as two, etc. are properties and they are produced in the object of cognition by a conjunctive cognition which includes several ones as its objects (*apekṣā-buddhi*).[5] Hence it is not impossible for a cognition to be one of the causal conditions of a property which resides in its object. Now the example of the conjunctive cognition of several ones which produces a property in its object may be used to demonstrate that every cognition has the property of being an agent or cause (*janakatva*) for the production of a property in its own object. The inference may be stated in the following way:

A cognition such as the cognition of a pot, which is different from the conjunctive cognition of several ones, is the ultimate causal condition for the production of a property in a pot, because of the property of

being the cognition of a pot. Wherever there is the property of being the cognition of a pot, there is the property of being the ultimate cause of a property which resides in the pot. For example, the conjunctive cognition of this is one pot and that is another pot generates the number two which resides in those two pots.

In this inference the locus (*pakṣa*) is the cognition of a pot which is different from the conjunctive cognition of several ones, the probandum (*sādhya*) is the property of being the ultimate cause of a property residing in the pot which is the object of this cognition, and the probans (*hetu*) is the property of being the cognition of a pot.

A conjunctive cognition, such as this is one pot and that is another pot, produces the number two in the objects of this cognition. Hence this conjunctive cognition has both the property of being the cognition of a pot, and the property of being the ultimate cause of the number two which resides in those pots which are the objects of this cognition. The former property is the probans and the latter the probandum of this inference. From this example the following rule may be formulated: Every cognition produces some property in the cognised object. If we accept this rule, then the cognition of a pot or the cognition that this is a pot, which is different from a conjunctive cognition of ones, would also produce some property in the pot. This produced property is to be called 'the property of being cognised' or '*prakaṭya*,' and thus it is to be inferred. In this inference the property of being different from the conjunctive cognition of ones is to be considered as a qualifier of the locus of inference. Here the word 'different from the conjunctive cognition of ones' is necessary, because the conjunctive cognition of ones is to be considered as an example for the above rule. Only a *sapakṣa* can be an example. A *sapakṣa* is a locus of the probandum which is known to be present in that locus, but the *pakṣa* is not characterised by certainty. There is some doubt about the presence of the probandum in the *pakṣa*. Hence the locus of the inference (*pakṣa*) can never be taken as an example. For this reason the property of being different from the conjunctive cognition of ones is to be considered as a qualifier of the locus in the above inference.

The opponents of the property of being cognised thesis do not consider this inference to be free from defects. They treat the property of being the conjunctive cognition of ones as an *upādhi*.[6] A property is an *upadhi* if and only if it is a pervader of the probandum, but not of the probans. Wherever there is the probandum, namely, the property of being the ultimate cause of the property residing in the object, there is the property of being the conjunctive cognition of ones. This is due to

the fact that a conjunctive cognition of ones has been accepted by the followers of both the views to be the locus of the probandum, and it is also the locus of the property of being the conjunctive cognition of ones according to the followers of both the views. Thus the followers of both the views would accept the property of being the conjunctive cognition of ones as the pervader of the probandum. But it has not been established to be the pervader of the probans. On the contrary, it has been claimed that the cognition of a pot which is different from the conjunctive cognition of ones and which has the probans, viz., the property being the cognition of a pot, does not have the property of being the conjunctive cognition of ones. Hence the property of being the conjunctive cognition of ones is not a pervader of the probans. In this way the above inference[7] is infected with the defect that the property of being the conjunctive cognition of ones is an *upādhi*.

Moreover, in the above inference the cognition of a pot is the locus of inference (*pakṣa*) and the property of being the cognition of a pot is the probans. The cognition of the locus and the cognition of the probans are causal conditions for the inferential cognition. In this inference[8] the property of being cognised (*jñātatā*) is to be established by the cognition of the cognition of a pot, and the cognition of a pot is to be established by the property of being cognised. Hence this inference involves the fallacy of *anyonyāśraya* (a type of *petitio principii*).[9]

The supporters of the mentally cognised view hold that a cognition is to be perceived by the mind. They claim that it is a fact that a cognition can be apprehended. When a cognition occurs, one cay say 'I have a perceptual cognition of such and such,' 'I have an inferential cognition of such and such,' and so on. Again, when one does not have a cognition of something, one can say, 'I do not have any perceptual cognition of such and such' or 'I do not have any inferential cognition of such and such.' Hence one can apprehend the absence of certain cognitions as well. This type of apprehension of a cognition is neither self-revealing nor is it inferable. Moreover, since in apprehending a cognition, expressions etc. are not always present as causal factors, an apprehension of a cognition cannot be said to be due to expressions. Hence apprehension of a cognition is not a case of a verbal cognition. Therefore it is to be accepted as perceptual in nature. An apprehension of a cognition is not a case of visual perception, because a blind person also can apprehend a cognition. In the same way, it is not a case of tactual perception, because a person who has lost his tactual sense-organ can apprehend a cognition. Since it can be apprehended by those who have lost other external sense-organs, it cannot be said to be due to

any external sense-organ. Hence in order to apprehend a cognition we have to admit some internal sense-organ as a cause of this apprehension over and above the external sense-organs. This internal sense-organ is the mind (*manas*).[10]

The supporters of this view put forward another argument in favour of the perceptual nature of the apprehension of a cognition. It is claimed that a cognition or a feeling such as happiness is present at the time of its apprehension. In other words, a mental state such as a cognition or a feeling is always present before its apprehension.[11] A cause is always an immediate predecessor of its effect. Hence it has the property of being the immediate predecessor of its effect. A cognition which is to be apprehended has the property of being the immediate predecessor of this apprehension. From this it follows that a cognition or any other mental state which is to be apprehended and which is the object of this apprehension is a cause of this apprehension. An object is not considered as a cause for an indirect cognition of it, but it is a cause for its perceptual cognition. From the fact that a cognition which is the object of apprehension is a cause of its apprehension, it follows that the apprehension of a cognition is perceptual in character.

In order to establish their view the supporters of the mental-perception theory put forward the following argument:

A cognition can be perceived because it is a special property of the self, destroyed at the third moment of its origination (*aśuvinaśi*) like the feeling of pleasure.

According to the Nyaya-Vaiśeṣika a cognition or a felling such as pleasure lasts for two moments, and it is destroyed at the third moment of its origination. The word '*aśuvinaśi*' used in this inference refers to an entity which is destroyed (or ceases to exist) at the third moment of its origination. The special qualities of the self such as cognition, pleasure, pain, desire, aversion and volition are all of this type.[12] All of them are perceivable. Hence the above inference does not have any fault.

Hence after having a non-dubious qualificative cognition (*vyavasaya-jñana*) such as the cognition of a pot, the cognition which occurs can be expressed by the sentence 'I know a pot.' According to the upholders of this theory the latter cognition is the mental perception of the former cognition. In the sentence 'I know a pot' which expresses this higher order cognition (*anuvyavasaya*) the word 'I' refers to the self which is the qualificand, the verb 'know' refers to a cognition which is the qualifier of the self, and the words 'a pot' refer to the object which is the qualifier of the latter cognition. Hence the cognition *I know a pot*

reveals the self qualified by the cognition which has a pot as its object. According to this view this cognition is a case of perception.

Now the sense-organ which gives rise to this perception must be related to each of the items of this cognition. The relation of the mind (*manas*) to the self is a conjunction. The relation of the mind to the cognition is an indirect relation of conjunction-cum-converse of inherence, because a cognition resides in the self by the relation of inherence. The relation of mind (*manas*) to a pot is a complex relation of conjunction-cum-the converse of inherence-cum- the property of being the object, because the non-dubious qualificative cognition which resides in the self by the relation of inherence has a pot as its object.[13] Therefore, since in a higher order cognition (*anuvyavasāya*) all the items are related to the mind (*manas*), there is no harm in calling the higher order cognition a mental perception.

Now an objection may be raised against the above thesis in the following way. If a first order qualificative cognition (*vyavasaya*) is due to the relation of conjunction-cum-converse of inherence with the mind (*manas*), then the second order qualificative cognition (*anuvyavasāya*) should also be due to the same relationship with the mind (*manas*) as this is also a cognition. When a second order cognition occurs, it is related to the self by the relation of inherence. Hence at the time of the occurrence of a second order cognition the mental sense-organ (*manas*) is related to it by the relation of conjunction-cum-converse of inherence. Therefore, after the second order cognition there should be a cognition of this cognition (i.e., third order cognition). Since the third order cognition is also a cognition and it is also due to this relationship with the mental sense-organ (*manas*), there should be a cognition of the third order cognition. In this way a series of one type of cognition will continue without any break (or end). Hence there will not be any scope for the occurrence of any other cognition or feeling such as pleasure or pain, and the apprehension of such mental states.

In reply the supporters of this view claim that it is not necessary that there will be a cognition of a cognition if there is a cognition. In other words, it is not a law that whenever a cognition occurs there will be a cognition of it. Hence after the occurrence of the cognition of a pot there is a mental perception (or *anuvyavasāya*) of the cognition of a pot due to the contact with the internal sense organ (*manas*) and other causal factors. But there is no such law that there will be a mental perception of this second order cognition. Hence when there is no mental perception of a higher order cognition, another mental state will occur. In this way the objection that the occurrence of a second order

mental state will prevent the occurrence of other types of mental states can be answered.

An objection has been raised against this reply. When a cognition occurs, it is related to the self by the relation of inherence and the internal sense-organ (*manas*) is related to the self by a conjunction relation. Hence at the time of the occurrence of a cognition the causal conditions for the cognition of this cognition are always present. By virtue of the causal law there will be a cognition of this cognition or the revelation of this cognition, the cognition of this second order cognition, and so on. Hence the above objection that the series of higher order cognitions will continue endlessly and thereby will prevent the occurrence of any other type of cognition or mental state cannot be refuted.

In reply it is said that it is a fact of our apprehension that we do have cognitions of different objects or different types of mental states. If every cognition is known through the internal sense-organ (*manas*), then the cognition of other objects, which is a fact of our apprehension, might not be possible. For this reason we do not accept the thesis that every cognition is amenable to our sense-organs. Hence certain cognitions cannot be cognised through sense-organs (*atīndriya*). If a cognition is not amenable to sense-organs, then a cognition of this cognition will not be possible. The series of higher order cognitions will end with this cognition. In other words, we start with a qualificative cognition, then we have a cognition of this cognition, and then we have a cognition of this cognition, and then another cognition of this cognition. After having a few higher order cognitions, there will be a cognition which is not amendable to the sense-organs. When this type of cognition is produced, the above series of cognitions will come to an end, and thereby the occurrence of another mental state will not be prevented. But as to the limit of the higher order cognitions there is no fixed rule. If we apprehend that a cognition is revealed to us, then the cognition of this cognition is to be accepted. Again, if the second order cognition is also apprehended, then we have to admit the cognition of it as well. But this process cannot go on for ever. At some point it will come to an end. The cognition with which this process will come to an end will not be amenable to sense-organs.

Alternatively, the above objection can be answered in terms of the relative strength of a cognition or mental state. The causal conditions of a feeling such as pleasure or the causal conditions of the cognition of pleasure are stronger than the causal conditions of the cognition of a cognition. Hence if the causal conditions of a feeling such as

pleasure and the causal conditions of a higher order cognition are present simultaneously, then the feeling of pleasure (or happiness) will occur, not the higher order cognition. Similarly, when the causal conditions of a higher order cognition and the causal conditions of the cognition of a feeling such as happiness are present simultaneously, the cognition of happiness will occur as its causal conditions are stronger than the causal conditions of the second order cognition.

The cognition of a cognition is a mental cognition (*mānasa-jñāna*). The causal conditions of inferential cognition, a verbal cognition, or an analogical cognition (*upamiti*) of some other object are stronger than the causal conditions of a mental cognition.[14] Otherwise, instead of having an inferential cognition after the operation (*parāmarśa*) of an inference, there will be a cognition of this operation, and thereafter a cognition of this higher order cognition and so on. Thus the inferential cognition (*anumiti*) will be prevented. Similarly, in the case of a verbal cognition, after having cognised a word which has occurred in a sentence there will be a higher order cognition of this cognition and thereafter a cognition of this higher order cognition and so on. Thus the series of higher order cognitions will prevent the occurrence of the verbal cognition (i.e., understanding the meaning of a sentence or a complex expression).[15] In the case of comparison (*upamana*) which is another source of valid cognition, the cognition of resemblance (*sadṛśya-jñana*), instead of generating the analogical cognition (*upamiti*), will generate a higher order cognition and the latter will generate its cognition and so on. Hence the analogical cognition (*upamiti*) will never take place.

Again, in the case of a continuous perception such as visual perception, the occurrence of the first cognition does not lead to a series of higher order cognitions. After the first visual cognition, there will be a second visual cognition, and so on.[16] From this it follows that the causal conditions of cognitions which are due to external sense-organs are stronger than the causal conditions of mental or internal perception (*manasa-pratyakṣa*). Stronger causal conditions will prevent the occurrence of the effects which are due to weaker causal conditions.

Hence the causal conditions which are stronger than the causal conditions of a higher order cognition will be considered as preventers of the higher order cognition. When both the causal conditions are present, the effects of the stronger causal conditions will take place, and the effects of the weaker causal conditions will be prevented by the stronger causal conditions. Hence, in the presence of a set of stronger causal conditions, the cognition of some other objects or some other mental state will take place, and the higher order cognition

will be prevented. This is how the objection that a series of higher order cognitions will prevent the occurrence of other cognitions can be answered.

Now the supporters of the self-revealing theory raise another objection against the above view in the following way:

The question is whether an initial qualificative cognition (*vyavasāya*) and the cognition of this cognition are due to the same conjunction relation which relates the internal sense-organ (*manas*) to the self or whether they are due to different conjunction relations. If they are due to the same conjunction relation, then there cannot be any difference between these two cognitions. For, in this case we have to admit that if the similar-to-inherent (*asamavāyī*) causes are different, then their effects are also different. The similar-to-inherent cause (*asamavāyī-kārana*) of a cognition is the relation between the internal sense-organ (*manas*) and the self. There cannot be any difference between a qualificative cognition and its second order cognition unless their similar-to-inherent causes, viz., the conjunction relations between the internal sense-organ (*manas*) and the self, are different. If the conjunction relation between the internal sense-organ (*manas*) and the self which is the similar-to-inherent cause (*asamavāyī-kāraṇa*) of a qualificative cognition is different from that of its second order cognition, then there cannot be any perception of the cognition or the second order cognition. For, according to this view, a cognition lasts for two moments. In order to have another conjunction relation between the internal sense-organ (*manas*) and the self after the occurrence of a qualificative cognition four moments are necessary. The first moment is the origination of action in the internal sense-organ (*manaḥ-kriyā*). The second moment is the separation due to this action. The third moment is the cessation of the previous conjunction relation. The fourth moment is the origination of a new conjunction relation. Since the qualificative cognition will cease to exist prior to the occurrence of the new conjunction relation, there cannot be any mental perception of this cognition. A perception is always of a present object, not of past object. In this case the qualificative cognition will cease to exist long before the occurrence of the second order cognition which presupposes another conjunction relation between the internal sense-organ (*manas*) and the self.

In reply, the followers of the Nyāya claim that there might be different effects even if their similar-to-inherent causes are not different. When a weaver makes a cloth out of some threads, the similar-to-inherent cause of the colour of the cloth is the colour of the threads and the threads are inherent causes of the cloth. Now if the weaver separates

the threads from the cloth and makes a new cloth out of the same threads, the similar-to-inherent cause (*asamavāyī-kāraṇa*) of the colour of the second cloth is the colour of the same threads. Since both the cloths have the same inherent causes which are threads, the colours of both the cloths have the same similar-to-inherent causes which are the colours of the threads. Since there are two different colours of two cloths, there are two effects. Hence there might be different effects even if the similar-to-inherent cause remains the same. Similarly, in the case of a qualificative cognition and its second order cognition (i.e., the cognition of this cognition), there is no harm in having two different effects even if there is only one conjunction relation between the internal sense-organ (*manas*) and the self, which is the similar-to-inherent cause of both of them.

Now the opponents of this view claim that the difference between effects can sometimes be due to difference in their inherent (*samavāyī*) causes or sometimes be due to difference in their similar-to-inherent (*asamavāyī*) causes. But in the case of a qualificative cognition and the cognition of this cognition the same self remains the inherent cause. Hence in this case the difference between them cannot be explained in terms of their inherent causes.

For this reason here we have to admit the difference in their similar-to-inherent causes to account for the difference in effects. In the above example the colours of two cloths have the same similar-to-inherent causes, but their difference can be explained in terms of their difference in inherent causes. For this reason we have to admit different similar-to-inherent causes to account for the difference between a qualificative cognition and its second order cognition as there is no difference in their inherent causes.

In reply it is said that the difference in effects can be observed even if there is no difference in their inherent causes or in their similar-to-inherent causes. For example, the colour and the taste of an earth-atom are due to contact with heat (or fire). Cooking changes the colour and the taste of an earth-atom. Here the word 'cooking' means a special type of contact with fire, and 'change of colour and taste' means the destruction of previous colour and taste, and the creation of new colour and taste. The inherent cause of the change in colour and taste, which is due to cooking, is an earth-atom, and the similar-to-inherent cause of this change is the contact with heat (or fire). Hence the inherent cause of both the colour and the taste is the same earth-atom, and the similar-to-inherent cause is also the same contact with the heat, but the effects, viz., the change in colour and the change in taste, are different.

Therefore, the effects could be different even if the inherent cause and the similar-to-inherent cause remain the same. Similarly, there is no harm in accepting a qualificative cognition and its second order cognition as two different effects of the same inherent and similar-to-inherent cause.

Now it may be asked, if a qualificative cognition and its second order cognition do not differ with respect to their inherent and similar-to-inherent causes, then what does explain their differences? In reply, it is said that they are different due to their different instrumental (*nimitta*) causes. The instrumental cause of a qualificative cognition such as a visual perception is the visual sense-organ, but it is not a cause of the cognition of this cognition. Again, the instrumental cause of the cognition of this cognition is the qualificative cognition, but the cognition of this cognition is not a cause of the qualificative cognition. Hence a qualificative cognition and its cognition have different instrumental causes. It is due to their difference in instrumental causes that a qualificative cognition and its cognition which are effects are different.

Now another objection has been raised against this view in the following way: In the second order cognition expressed by the sentence 'I know this is a pot,' the self which is the referent of the word 'I' is the qualificand, and the cognition is the qualifier. In this cognition the property of having a pot as an object (*ghatavisayakatva*) and cognitionhood are qualifiers. Hence the second order cognition may be described as a cognition which is qualified by a cognition which is qualified by cognitionhood. Now a cause of the cognition qualified by the cognition which is qualified by cognitionhood is the cognition of the cognition qualified by cognitionhood. Hence the second order cognition presupposes the cognition of the cognition qualified by cognitionhood. Again, the cognition of the cognition qualified by cognitionhood presupposes the cognition of cognitionhood. If the cognition of cognitionhood is the same as the cognition of the cognition qualified by cognitionhood, then again we require the cognition of cognitionhood. If this process goes on, then there will be an infinite regress. In order to avoid this type of infinite regress a type of cognition called 'non-qualificative cognition' ('*nirvikalpaka-jñāna*')[17] has been postulated. In a non-qualificative cognition both the cognition and the cognitionhood become objects, but they are not related to each other. After having a non-qualificative cognition we have the cognition of the cognition qualified by cognitionhood. Thereafter one can have the cognition of I (self) qualified by the cognition which is qualified by cognitionhood. This second order

cognition is expressed by the sentence 'I know this is a pot.' On this point an objection has been raised by the opponents of the Nyāya.

It is claimed that the cognition of the cognition qualified by cognitionhood, which is presupposed by the second order cognition, cannot take place. For, the non-qualificative cognition of cognitionhood, which is presupposed by the cognition of the cognition qualified by cognitionhood, destroys the initial qualificative cognition (*vyavasāya*) which is the qualificand of the cognition qualified by cognitionhood. It can be demonstrated in the following way: First, there is a qualificative cognition which is expressed by 'This is a pot.' Just after this cognition there is a non-qualificative perception of the cognition and cognitionhood. Right after this cognition we have to admit the cognition of the initial qualificative cognition (*vyavasāya-jñāna*) qualified by cognitionhood. Since according to the Nyāya-Vaiśeṣika a cognition lasts for two moments only, when we are supposed to cognise the initial qualificative cognition qualified by cognitionhood, the initial qualificative cognition ceases to exist. According to the law of perception, a perceptual cognition and its qualificand (*viśeṣya*) must exist at the same time. Past and future objects cannot be qualificanda of perceptual cognitions. The qualificand (*viśeṣya*) of the perceptual cognition the object of which is a primary qualificative cognition (*vyavasaya-jñana*) qualified by cognitionhood is the primary qualificative cognition. This qualificative cognition ceases to exist at the third moment of its origination. In other words, since it ceases to exist just after the origination of the non-qualificative cognition, we cannot have the perceptual cognition of this qualificative cognition qualified by cognitionhood. Again, unless we have the cognition of the cognition qualified by cognitionhood, in other words, the cognition of the primary qualificative cognition (*vyavasaya-jñana*) qualified by cognitionhood, we cannot have the cognition of the self qualified by the cognition which is qualified by cognitionhood. As a result, the second order cognition becomes impossible.

In order to answer this objection Acarya Udayana said that there is no second order cognition of the first qualificative cognition. According to him right after the first qualificative cognition there will be a non-qualificative cognition of the previous qualificative cognition and cognitionhood. After this non-qualificative cognition there will be another qualificative cognition, the object of which will be the same as the object of the previous qualificative cognition. Just after the origination of the second qualificative cognition, the cognitionhood which has been cognised in the previous non-qualificative cognition becomes the qualifier of the second qualificative cognition. Hence there is no

difficulty in having a cognition of the cognition qualified by cognitionhood. According to this view the first qualificative cognition is the object of the non-qualificative cognition, but the second qualificative cognition is not an object of any non-qualificative cognition. It is the object of a cognition qualified by cognitionhood.[18]

Now the question is, if there is no second order cognition of the first qualificative cognition, then what is the proof for the occurrence of the first qualificative cognition? It is claimed that the proof for the existence of a cognition lies in the apprehension of it. If a cognition is not an object of apprehension, its existence cannot be proved (or established).

As an answer to this objection it is said that the perceptual apprehension of a cognition is not the only proof for the existence of a cognition. For example, there is no perceptual apprehension of a non-qualificative cognition, but still it has been established as a cause of a qualificative cognition. The existence of the first qualificative cognition can be established in the following way: One of the causal conditions of the second order cognition is a qualificative cognition. This qualificative cognition is the cognition of a cognition qualified by cognitionhood. This qualificative cognition is the cognition of the second qualificative cognition qualified by cognitionhood. One of the causal conditions of the latter is the non-qualificative cognition of cognitionhood and the cognition (i.e., the first qualificative cognition). Hence the first qualificative cognition is a cause of the non-qualificative cognition. This is how the first qualificative cognition is to be established.

But according to Vardhamana Upadhyaya, a Nyaya philosopher, the above solution to the problem offered by Acārya Udayana is not universally valid. In other words, this type of solution is not possible in all cases. He claims that the second qualificative cognition, in terms of which the solution has been offered, cannot occur in those cases where its causal conditions are not present. Hence the second order cognition will not take place in such cases.

Even if the second qualificative cognition can always be postulated in the case of a perceptual qualificative cognition which is due to the contact between a sense-organ and an object, it is impossible to postulate second qualificative cognitions in cases such as inferences. This is due to the fact that certainty prevents the occurrence of an inferential cognition. The first inferential cognition which is free from doubt prevents the occurrence of the second one. Hence in the case of an inferential cognition there cannot be a second order cognition of the form 'I infer such and such.' After raising this type of objection

against the solution of Ācārya Udayana, he has proposed the following solutions to the above problem.

First of all, Vardhamāna Upādhyāya does not subscribe to the view that the qualificand of a perceptual cognition must be present at the moment of the origination of the perceptual cognition. On the contrary, he has accepted the view that the qualificand of a perceptual cognition has the property of being the immediate predecessor of the perceptual cognition.[19] In other words, the qualificand is present just before the occurrence of a perceptual cognition. Hence, according to this view, first we have a primary qualificative cognition, and then at the next moment there is a non-qualificative perception of the primary qualificative cognition and cognitionhood. At the third moment there is no difficulty in having a perception of the cognition qualified by cognitionhood. Since a qualificative cognition lasts for two moments, the primary qualificative cognition which is the qualificand of the perception of the cognition qualified by cognitionhood is present just before its occurrence.[20] Hence the above rule that the qualificand has the property of being the immediate predecessor of perception has not been violated.

Secondly, Vardhamāna Upādhyāya has proposed another solution to the above problem without rejecting the view that the qualificand of a perceptual cognition is present at the time of its occurrence. He has claimed that the non-qualificative cognition which occurs just after the qualificative cognition is not non-qualificative (i.e., qualificative) with respect to the cognition; because a cognition can never be revealed (or apprehended) without its object. A cognition being always of something is revealed as being related to its object. Hence when a cognition becomes the object of a non-qualificative cognition, it is qualified by its object. In other words, when a non-qualificative cognition occurs just after the qualificative cognition of a pot, the cognition which becomes the object of the non-qualificative cognition is qualified by having a pot as its object, but cognitionhood which also becomes the object of the same non-qualificative cognition is not considered as a qualificand or a qualifier. Hence the non-qualificative cognition has two objects, viz., cognitonhood and the cognition of a pot. This cognition is non-qualificative with respect to cognitionhood, but with respect to cognition (or the cognition which has a pot as its object) it is qualificative. Hence the cognition (or the cognition of a pot) which is the object of this non-qualificative cognition is not qualified by cognitionhood. After having this type of non-qualificative cognition there will be a second order cognition of the non-qualificative cognition which is qualified by cognitionhood. In other words, the second order cognition is the

cognition of the cognition, which has the cognition of a pot as its object, and is qualified by cognitionhood.[21]

Now an objection can be raised against this solution in the following way: In this case the qualificand of the second order cognition is a non-qualificative cognition, but this is not possible. Since a non-qualificative cognition is not amenable to sense-experience (*atīndriya*), it cannot be an object of mental perception.

As an answer to this objection it is said that, although the qualificand of this second order cognition is non-qualificative, it is not non-qualificative in every respect. It is non-qualificative with respect to cognitionhood, but not with respect to the property of having a pot as its object (*ghaṭa-viṣayakatva*).[22] In other words, it is qualificative with respect to this property. Hence this cognition cannot be said to be not amenable to sense-experience if it is qualified by the property of having a pot as its object. Therefore, this cognition as being qualified by the property of having a pot as its object can be the qualificand of a second order cognition.

Against this solution it may be said that the object of the second order cognition is not the initial qualificative cognition (*vyavasāya*), but the non-qualificative cognition which has occurred just after the qualificative cognition. Hence it cannot be said to be the second order cognition of the initial qualificative cognition.

In reply it has been said that the non-qualificative cognition, which has occurred just after the qualificative cognition, may be taken as the second order cognition of the qualificative cognition. For, the cognition in question is non-qualificative with respect to cognitionhood, but qualificative with respect to the property of having a pot as its object. Hence this cognition (i.e., the non-qualificative cognition) reveals the initial qualificative cognition as being qualified by the property of having a pot as its object. Therefore, there is no harm in accepting this non-qualificative cognition as the second order cognition of the initial qualificative cognition.[23] Only one fact has not been revealed in the non-qualificative cognition. This fact is that the cognition which has the property of having a pot as its object has also cognitionhood. Hence, in order to reveal this fact, another cognition which occurs just after the non-qualificative cognition has been proposed.

Now let us discuss another objection raised against the non-self-revealing theory. It is said that if a cognition is revealed by some other cognition, then a person who has cognised a pot may doubt whether he has a cognition of a pot. But the person who has cognised a pot never doubts whether he has cognised a pot. On the contrary, the person who

has cognised a pot has certainty about his cognition of a pot. This is possible only if we admit that a cognition reveals itself. According to the self-revealing theory the conditions which are responsible for the occurrence of a cognition are also responsible for its revelation. Hence a cognition will be revealed or cognised as certain when it is produced. If a cognition is certain at the time of its occurrence and if there is no doubt about something which is certain, then there is no scope for doubt about this cognition. But according to the non-self-revealing theory, a cognition is never revealed at the time of its occurrence. It can be revealed only if certain other conditions for its revelation are present after its occurrence. But when the causal conditions for the second order cognition are not present after the occurrence of the cognition of a pot, the cognition of a pot cannot be revealed or considered as certain. Hence there is scope for doubt about the cognition of a pot after its occurrence if the conditions for the second order cognition are not present. Hence the above objection against the non-self-revealing theory that there is scope for doubt about the cognition of a pot after its occurrence cannot be refuted.

In reply the supporters of the mental perception theory claim that the above objection cannot be raised against their view. For, a doubt presupposes the cognition of a property-possessor (*dharmī*) which appears under the mode of a property-limitor, and it also presupposes the absence of certainty with respect to each of the alternative properties which are applied to the property-possessor. For example, after having seen from a distance the trunk of a tree which has the same height as a human being, one may express a doubt by the sentence 'Is this a human being or a pillar?' In this case the trunk of the tree is the property-possessor. Since the trunk of the tree appears as *this*, the property of being this becomes its property-limitor (*avacchedaka*). In other words, it is presented under the mode of the property of being this (*idantvadharmitāvacchedaka*). Two incompatible properties appear as qualifiers in a doubt, and each of them is called 'an alternative' ('*koṭi*'). In our above example, the alternatives are pillarhood and humanity. There would not have been this type of doubt, if the trunk of the tree had not been cognised under the mode of the property of being *this*. Again, there would not have been this type of doubt, had there been certainty about the presence of pillarhood or humanity in the object presented under the mode of the property of being *this*. Hence when there is no certainty about the presence of pillarhood or humanity due to distance or darkness which is a defect, but the trunk of the tree is cognised as this, then the above type of doubt would take place.

Now let us consider a doubt about the presence of a cognition such as 'Do I have the cognition of a pot or not?' In this doubt the self or the referent of 'I' is the property-possessor, and selfhood is the property-limitor. The cognition of a pot and the absence of the cognition of a pot are the two alternatives. This type of doubt can occur only if the self is known in the above way and there is no certainty about the presence of the cognition of a pot or about the absence of the cognition of a pot. But if the self is perceived just after the cognition of a pot, there will be certainty about the presence of the cognition of a pot in the self. For, if there is a perception of the self, then there is a contact between the internal sense-organ (*manas*) and the self, which is necessary for this perception. Again, if there is a contact between the internal sense-organ (*manas*) and the self, then the internal sense-organ (*manas*) is related to the cognition of a pot by the relation of contact-cum-converse of inherence. Thus the cognition will be related to the internal sense-organ.

Now an objection may be raised in the following way. It may be said that in the case of doubt such as 'Is this a human being or not?', the sense-organ will be related to the property-possessor for the cognition of it, and thereby the sense-organ will be related to humanity if it happens to be a human being. Hence there will be a cognition of humanity when the property-possessor is being cognised. Since there is certainty about the cognition of humanity in the property-possessor, there will not be any scope for doubt as it happened in the previous example of the self.

In reply it is said that the analogy does not hold good. In the latter example, humanity is an external entity, and with respect to the perceptual cognition of an external entity there might be various types of defects such as distance or certain inappropriate causal conditions such as insufficient light, insensitive sense-organ, etc., which are causes of invalid cognitions.[24] Therefore, if some of these defects or inappropriate causal conditions are present, there might not be a certain (or doubt free) cognition of humanity in the property-possessor. But in the case of a mental perception there is no scope for similar defects or inappropriate causal conditions. Hence during the mental perception of the self there will be a perception of the self qualified by the cognition of a pot. Since there will be certainty about the presence of the cognition of a pot in the property-possessor which is the self, there will not be any scope for doubt in this case.

The above discussion shows how the Nyaya-Vaiśeṣika philosophers have established the mental perception of a cognition or the higher

order cognitions. They have refuted the objections raised against their view, and put forward certain arguments in favour of their view. Various types of objection may be raised against these arguments as well. I hope the followers (or scholars) of each of the schools will look for arguments in favour of their respective views.

EXPLANATORY NOTES

1 In this case the cognition of the probans is dependent upon the cognition of the probandum. According to the Nyāya philosophers *pakṣatā* is one of the causal conditions of an inferential cognition, and it is defined as a dubious cognition of the presence of the probandum (*sādhya-saṃśaya*) in the locus of inference. In other words, there is absence of certainty about the presence of the probandum in the locus of inference. In this context the author has mentioned a type of epistemic circularity which is to be distinguished from other types of circularity. This type of circularity is called '*siddha-sādhana-doṣa*' ('the fallacy of presupposing the cognition of the inferred entity'). The other three types of fallacies of a circularity are called '*ātmāśraya*,' '*anyonyāśraya*,' and '*cakraka*,' and they could be either epistemic or causal (i.e., objectual).

The *ātmāśraya* type of fallacy occurs when the cause of x is explained in terms of x, or the cognition of x presupposes the cognition of x.

The *anyonyāśraya* type of fallacy occurs when x is a causal condition of y, and y is a causal condition of x, or the cognition of x requires the cognition of y, and the cognition of y requires the cognition of x.

In the case of a *cakraka* fallacy more than two terms are involved. With three terms this fallacy would take the following form: x is due to y, y is due to z, and z is due to x, or the cognition of x presupposes the cognition of y, the cognition of y presupposes the cognition of z, and the cognition of z presupposes the cognition of x.

It is to be noted that the fallacy of *siddha-sādhana* is only epistemic, and it occurs only in the context of an inference. Hence it expresses the fault of the cogniser only.

2 According to the Nyāya every relation is dyadic. The so-called higher order relations such as triadic are reducible to a set of dyadic relations. Hence each relation has only two terms, simple or complex.

3 Her the author has introduced the technical terms '*kriya*' ('action') and '*karma*' ('object') as used by the Grammarians. An action, according to the Grammarians, is the meaning of a verbal root, and an 'object' is the locus of the result of an action. In other words, the object is that where the result of an action resides. Hence 'objecthood' or 'the property of being the object' ('*karmatva*') is to be defined as 'the property of being the locus of the result which is due to an action.' In other words, '*karmatva*' refers to the result of an action.

But in the Nyāya-Vaiśeṣika system *karma* is one of the seven categories. Since the word '*karma*' refers to different types of movements, such as throwing upwards, contraction, expansion, etc., it is usually translated as 'action.' It is considered one of the causal conditions of conjunction (*saṃyoga*) and separation (*vibhaga*) which are qualities in the Nyāya-Vaiśeṣika system. It has been defined in the following way:

> x is an action *Df* x is different from a conjunction, but x is similar-to-inherent cause (*asamavāyī-kāraṇa*) of a conjunction.

According to the Nyāya, an action involves four moments and has three successive effects. Each of the effects is produced at a moment. Moments are described in terms of an action or its effects which are imposed properties of moments. The first moment of an action is explained in terms of the origination of an action. It is the not-yet type of absence of separation which is due to an action. Hence an action qualified by the not-yet type of absence of separation is the imposed property (*upādhi*) of the first moment.

The second moment is the origination of separation due to the same action. Hence the action qualified by the separation and the previous conjunction becomes the imposed property of the second moment.

The third moment is the cessation of previous conjunction. Hence the same action qualified by the cessation of the previous conjunction and the not-yet type of absence of the next conjunction becomes the imposed property of the third moment.

The fourth moment is the origination of a new conjunction. Hence the same action qualified by a new conjunction becomes the imposed property of the fourth moment.

Among these four moments the first one is qualified by the not-yet type of absence of separation which is due to the action. Hence it is not qualified by its effects. But the remaining three moments are qualified by its effects. In this context it is to be noted that a moment has several imposed properties. It is described by the origination of an action, or by an effect of another action, or by the originations of several actions, or the effects of several actions. Moreover, since a moment is described in terms of an action, an action becomes an imposed property (*upādhi*) of time. Hence time is to be understood in terms of an action.

It may also be noted that according to the Nyāya, mental qualities such as cognition, desire, etc., are not actions. Hence the use of the word 'moment' in the context of mental qualities is to be explained in terms of an action. Therefore, the origination, or the duration, or the cessation of a mental quality such as cognition, is to be described by an action. Since every action is explained in the same way, any action can be used to determine the moments of a mental quality.

4 Here the author has used the word '*prayojaka*' ('causative') which cannot be equated with '*kāraṇa*' ('cause'). The set which corresponds to '*kāraṇa*' is a proper subset of the set which corresponds to '*prayojaka*.' Hence a *kāraṇa* is also a *prayojaka*, but a *prayojaka* is not always a *kāraṇa*. The limitor of the property of being the cause is a *prayojaka*, but not a *kāraṇa*. For example, a stick is a causal condition for the production of a pot, but stickness is not a causal condition, although it is a *prayojaka* for the production of the pot. Similarly, the cognition of the rule of invariable concomitance is the special instrumental cause (*karaṇa*) of an inferential cognition (*anumiti*), but the rule of invariable concomitance (*vyāpti*) is a *prayojaka* of it. It is also an example of the limitor of the property of being the cause (*kāraṇatāvacchedaka*).

Moreover, the cause of a cause is a *prayojaka*. For example, the father of a pot-maker is a *prayojaka* of a pot, but not a cause of it. Similarly, when an agent caused another agent to perform an action, the former becomes a *prayojaka* of the action, but not a cause of it. For example, Rāma causes Devadatta to make a pot. Here Rāma is a *prayojaka*, but not a cause of the pot. Since there is a distinction between '*prayojaka*' and '*kāraṇa*,' the former may be translated as 'causative' and the latter as 'cause.'

5 This discussion presupposes the Nyāya conception of number in general and the Nyāya explanation of numbers higher than one in particular.

A number, in the traditional Nyāya ontology, is a quality (*guṇa*) of a substance (*dravya*), and hence it resides in a substance by the relation of inherence. Moreover, every substance has its own number one. The number one of this table cannot be identified with the number one of that table as the colour red of this table cannot

be identified with the colour red of that table. Again, by virtue of being one a table is called 'one table' as by virtue of being red it is called 'a red table.' Hence a number is as objective as any other quality such as colour or shape.

The number one of a substance is either eternal or non-eternal depending on whether the substance is eternal or non-eternal. Hence the number one of an eternal substance such as an earth atom is eternal, and the number one of a non-eternal substance such as this table is non-eternal. The number one of an eternal substance has neither origin nor destruction. But the number one of a non-eternal substance has both origin and destruction. For example, the number one of this table did not exist prior to this table, and it will not exist once the table ceases to exist. As regards causal conditions, this table is the inherent cause (*samavāyī-kāraṇa*) of its number one since it inheres in this table. The number one of a part of this table is its similar-to-inherent cause (*asamavāyī-kāraṇa*) as it inheres in the part of this table. All other causal conditions such as space, time, etc., are its instrumental causes.

But the numbers beginning with two are all non-eternal and caused by certain cognitions, although they reside in the substances which are independent of the knowing minds. Hence the origin of these numbers presupposes objects or substances and cognitions of those objects. Let us consider number two. The number two of a table and a chair is not the same as the number two of a book and a pen. Hence each pair class will have its own number two. The inherent cause of the number two of the former class (i.e., the table and the chair) would be the table and the chair. But the similar-to-inherent cause would be the number one of the table and the number one of the chair. In addition to these causal conditions the cognition of the table as this is one and of the chair as this is one would be an instrumental cause of this number two. Hence this cognition is a conjunctive cognition of the number ones which reside in those two objects. It may, therefore, be called 'the mental process of counting.' Similarly, the number two of the book and the pen will depend on the mental process of counting.

According to the Nyāya these numbers will exist so long as their respective instrumental causes i.e., conjunctive cognitions will continue to exist. Hence the cessation of the conjunctive cognition of the table and the chair will lead to the cessation of the number two which resides in them. In favour of a conjunctive cognition being an instrumental cause, the Nyāya has suggested the following argument.

If the numbers are not caused by any cognition of counting and revealed to us like the colour or the shape of an object, then we can cognise a large number, such as fifty, after looking at fifty objects without the process of counting. But this is contrary to our experience. When we look at this collection of fifty objects, we do not cognise the number fifty as we cognise their colours. For this reason the numbers beginning with two are dependent on the mental process of counting which is a type of conjunctive cognition (*apekṣā-buddhi*).

According to the Nyāya a cognition in general lasts for two moments. But in order to explain the perception of a number greater than one the Nyāya claims that a conjunctive cognition lasts for three moments. The following moments are involved in our cognition of a number greater than one such as two. The first moment is the origination of the conjunctive cognition having the form 'this is one, that is one.' The second moment is the origination of the number two in those objects. The third moment is the non-qualificative cognition (*nirvikalpaka-jñāna*) of the universal twoness. The fourth moment is the perception of the objects qualified by the particular number two. At this moment the conjunctive cognition ceases to exist. The fifth moment is the cessation of the number two.

If a conjunctive cognition also last for two moments like any other cognition, then it will cease to exist at the third moment and thereby the number two which is dependent on it will cease to exist at the fourth moment. If it were so, then at the fourth moment the perception of the number two which qualifies those objects

would not be possible as the number two ceases to exist at this moment. In order to avoid this problem the Nyāya postulates the continuation of this type of conjunctive cognition for three moments.

As the perception of two presupposes the conjunctive cognition of this is one and that is another, so the cognition of three presupposes the conjunctive cognition of these are two and this is one. Hence the general rule is this: The cognition of n, where n is greater than one, presupposes the conjunctive cognition of n-1 and one. Hence the cognition of fifty presupposes the conjunctive cognition of the form 'these are forty-nine, that is one.'

In this context it is to be noted that the Nyāya theory of number cannot be equated with logicism, intuitionism, or formalism. It cannot be identified with logicism because the numbers greater than one are not discovered by us or independent of the knowing mind, or reducible to sets. Since the numbers, according to the Nyāya, are not mental concepts, but qualities of objects, the Nyāya view cannot be equated with intuitionism which claims that they are constructed objects or concepts. Again, the Nyāya view cannot be equated with formalism as numbers are real qualities of objects or substances.

In order to explain the distinction between the meanings of the word 'two' which has occurred in the sentences 'This object is not two, but it is a locus of two,' and 'These are two objects,' the Nyāya introduces two types of relation for relating the number two to its loci. In the former sentence the second occurrence of 'two' refers to a quality which is related to its locus by the relation of inference, but in the latter sentence 'two' refers to a property which is related to the collection by the relation of *paryāpti* which is a type of self-linking (*svarūpa*) relation. Since a self-linking relation is not ontologically a distinct relation over and above its terms, it is to be identified either with the first term or with the second term. However, in general, it is identified with the first term. Since each number two is a particular one, there would be as many particular twos as there are collections of two objects. If we have three objects, say a, b, c, in our universe of discourse, then there would be three pair classes, viz., $\{a, b\}$, $\{a, c\}$, $\{b, c\}$.

Moreover, since a number greater than one is dependent on the mental process of counting, there would be as many twos for each of the collections as there are mental processes of counting. For example, if there are four mental processes of counting for each of the collections, then there would be four number twos for each of the pair classes. Each of the twos will be related to the collection by the relation of *paryāpti*, but each of them will be related to the members of the collection by the relation of inherence. The existence of each of the twos will depend on the mental process of counting which is a type of conjunctive cognition, or on the inherent cause of it.

Now it may be asked why a number, once created, will depend on the mental process of counting. If it is a quality of an object, why should we not consider it as independent of the mental process of counting which is an instrumental cause of it?

As an answer to this question the Nyāya claims that a number, in this respect, is not like any other qualities such as a colour. The colour of the house presupposes a painter, brush, paint, etc., as its causal conditions. Once the house is being painted, the colour does not depend on the brush or the paint for its existence, because it can be perceived by any other individual. Anyone who has a visual contact with the house will perceive its colour. If numbers were like the colour of the house, then anyone who has a visual contact with a collection will perceive its number without counting. But this does not happen with respect to every collection, especially with respect to a large collection. For example, John has counted a collection which contains fifty-five objects and another collection which contains fifty-six objects. If these numbers continue to exist independent of further counting, then Tom, after

looking at these two collections, will be able to perceive their respective numbers as he perceives the colours of two houses. Since he cannot perceive the numbers of these collections without counting, the Nyāya claims that numbers are not independent of counting, and there would be as many particular numbers as there are countings. Hence if there are three countings of fifty, there would be three particular number fifties. But all the particular fifties have the universal fifty-ness in common.

Another objection may be raised against the Nyāya concept of number. It may be said that the process of counting simply produces the cognition of a number, it does not produce a number in the objects. Hence the effect of the process of counting is not a number, but the cognition of a number. In reply the Nyaya claims that the postulation of a number as an effect is simpler than the postulation of the cognition of a number as an effect. Hence the Nyāya view is justifiable on the ground of simplicity.

Now the question is whether there is any need for two types of relation such that one type of relation relates a particular number to a collection (or the objects *taken together*), while the other type of relation relates the same number to each of the members of the collection. In the former case a number becomes a property of the collection, and in the latter case it becomes a quality of the members of the collection. The Nyāya reply to the question is in terms of certain epistemic consideration.

Let us consider the following cognitions:

X knows a which is a member of the set $\{a, b\}$.

Y knows a which is a member of the set $\{a, c\}$.

Both X and Y know the same a, but their cognitions about the same a cannot be said to be identical. In other words, there is some difference in their contents. The way a is presented to X is not the same as the way a is presented to Y. X knows a as something which is a member of a set to which b belongs, and Y knows the same a as something which is a member of set to which c belongs. Now the question is how to explain this difference in the cognitive values of X and Y. The Nyāya reply is that the number two of the set $\{a, b\}$ is not the same as the number two of the set $\{a, c\}$, and the number two of the former set qualifies a as well as b and the number two of the latter set qualifies a as well as c. In other words, the number two of the former set is related to the set by one type of relation and to its members by another type of relation. Similar is the case with the latter set. For this reason X's cognition of a cannot be said to be the same as Y's cognition of the same a. Hence, according to the Nyāya, being a member of a set becomes a quality of its members, and this quality cannot be reduced to a set. If the set theory is used to reduce properties to sets or sets of sets and so on, then being a member of a set, which is a type of property in the Nyāya system, cannot be reduced to another set. The Nyāya concept of number as a quality of the members of a set may be used to explain what is called 'being a member of a set.' Hence the Nyāya theory can explain certain cognitive differences which cannot be explained in terms of set theory.

From this discussion it follows that a number greater than one is related to the collection by a *paryāpti* relation which is a type of self-linking (*svarūpa*) relation, and it is also related to its members by the relation of inherence in the ontology of the Nyāya. Now the question is whether a particular number one which is a quality of a substance is also related to the substance by a *paryāpti* relation. On this point the Navya-Nyāya philosophers such as Raghunātha Śiromaṇi claim that the cognition of *This is one pot* cannot be explained adequately unless we admit that the particular number one is related to the pot by a *paryāpti* relation in addition to the relation of inherence. As the universal potness is present in the entire pot, not in any of its

parts, or the universal humanity is present in the entire being of a person, not in his/her parts, so the number one qualifies every object, animate or inaminate, in its entirety. Hence it is related by a *paryāpti* relation as well.

In addition to these two types of relation which explain the use of the word 'one' in sentences such as 'This is a locus of one,' 'This is one pot,' the Nyāya introduces another use of 'one' in sentences such as 'One person is eating at home.' If the sentence 'One person is eating at home' means 'A person qualified by being one (*ekatva*) is eating at home,' then the former sentence would be true even if several persons are eating at home, because each of them is qualified by a particular number one. Hence the Nyāya claims that this use of 'one' cannot be explained in terms of being one (*ekatva*). In this context the word 'one' means "only one.' The Nyāya explains the meaning of the word 'only one' in terms of having an absence or a negative property. Hence the meaning of the sentence 'one person is eating at home' can be explained in terms of the following conjunctive sentence.

A person is eating at home, and he/she has the absence of other persons qualified by the property of eating at home by the relation of having the same locus (*sāmānādhikaraṇya-sambandha*).

This conjunctive sentence may be expressed in the following way:

1) ($\exists x$) (x whose property of being the object is limited by humanity has the property of eating at home, and (y) (If $x \neq y$ and y whose property of being the object is limited by humanity has the property of eating at home, then x has the absence of y by the relation of having the same locus)). 1) may be expressed in the following way:
2) ($\exists x$) (x who is F has G. (y) (($y \neq x$. y who is F has G) $\supset$ ((absence of y by the relation R)x))), where 'F' stands for 'a person', 'G' for 'the property of eating at home', 'R' for 'having the same locus'.

Hence the form of 2) may be expressed by

3) ($\exists x$) ($\emptyset$ x. (y) (($y \neq x$.$\emptyset$ y) $\supset$ ((absence of y by the relation R)x)))

The Nyāya explains the meaning of 'only one' in terms of having a negative property. In the above example, the negative property resides in the locus of the person who is eating at home and thereby characterises the person who is eating at home by the relation of having the same locus.

It may be noted that 3) is similar to Russell's analysis of definite description, which has the following form.

4) ($\exists x$) (Hx . (y) ($Hy \cdot\supset x = y$)), where 'H' stands for 'a person who is eating at home.'

In spite of some similarities with Russell's analysis, there is one important difference. They Nyāya philosophers, unlike Russell or many contemporary logicians, do not assert an identity between an existent object which satisfies a property and an object which is supposed to satisfy the property.

From this discussion it follows that the word 'one' can be used in three senses. (a) When *being one* (*ekatva*) is related to its locus by the relation of inherence, it is considered a quality of its locus. (b) When *being one* (*ekatva*) is related to the same object by a *paryāpti* relation, it is considered as its property. In this sense, an object may be identified with a unit class. (c) Again, the word 'one' may be used in the sense of 'only one.' In this sense, it is not a number, but a complex imposed property (*sakhaṇḍa upādhi*). Hence the universal oneness (*ekatvatva*) does not inhere in this complex imposed property.

As 'one' can be used in the sense of 'only one' so are the other numbers. Hence when we say 'two persons are eating in this house,' we may mean 'only two persons are eating in this house.' This sentence may be expressed in the following way:

5) $(\exists x)$ $(\exists y)$ (x is a person and eating in this house. y is a person and eating in this house. (z) ((($z \neq x$. $z \neq y$) . z is a person and eating in this house) $\supset$ ((absence of z by the relation R)x. (absence of z by the relation R)y))).

This is also similar to the symbolic counterpart of contemporary logicians. Here also the identity has not been asserted between an existent object which satisfies the property and an object which is supposed to satisfy this property. The Nyaya philosophers have assigned negative property to an existent object or existent objects, and the word 'only' represents this negative property.

From the above discussion it also follows that the numbers greater than one can be used in three senses. Hence a number greater than one is related to the collection by a *paryāpti* relation, it is related to each of the members of the collection by the relation of inherence, and an expression for this number can be used in the sense of 'only.' When it is used in the sense of 'only,' it signifies a complex imposed property which is a real property. Hence unreality does not enter anywhere in the Nyāya analysis of number or the use of the word 'only.'

6 If we can show that an inference contains an *upādhi*, then we can demonstrate that it suffers from *vyabhicāra* fallacy, i.e., the probans is present, but the probandum is absent. This method is used especially in those cases where we cannot directly demonstrate the presence of the probans in a locus which is characterised by the absence of the probandum. For example, a red hot iron ball has smoke, because of fire.

In this inference the locus is any red hot iron ball, the probans is fire, and the probandum is smoke. Since every red hot iron ball is the locus, there is doubt about the presence of the probandum in every red hot iron ball. Hence the absence of the probandum is not known in any red hot iron ball. Hence in such cases the fallacy of *vyabhicāra* is demonstrated by introducing an *upādhi*. An *upādhi* may be defined in the following way:

> z is an *upādhi* iff z is a pervader of the probandum, but not a pervader of the probans.

If something is a pervader of the probandum, then it is also a pervader of the probans. But if it does not pervade the probans, then the probans deviates from it. Form this it will follow that the probans deviates from the probandum. Hence the probans is called '*vyabhicārī*' and the inference suffers from the fallacy of *vyabhicāra*.

It is a valid rule that if x is pervaded by y and y is pervaded by z, then x is pervaded by z. But if z pervades y and x is not pervaded by z, then x is not pervaded by y. From this it follows that z is an *upādhi*, and x is not a genuine probans (*asad-hetu*). Hence it is a method of proving the falsity of the premise 'If there is x, then there is y' in the following inference:

1. If there is x, then there is y
2. If there is y, then there is z

∴3. If there is x, then there is z

If z is an *upādhi*, then the premise (2) is true, but the conclusion is false. From this it will follow that the premise (1) is false. Formally it may be presented in the following way:

1. $((p \supset q) \cdot (q \supset r)) \supset (p \supset r)$
2. $(q \supset r)$
3. $\sim (p \supset r)$

∴4. $\sim (p \supset q)$

5) $(\exists x)$ $(\exists y)$ (x is a person and eating in this house. y is a person and eating in this house. (z) $(((z \neq x \,.\, z \neq y) \,.\, z$ is a person and eating in this house) $\supset$ ((absence of z by the relation $R)x$. (absence of z by the relation $R)y$))).

This is also similar to the symbolic counterpart of contemporary logicians. Here also the identity has not been asserted between an existent object which satisfies the property and an object which is supposed to satisfy this property. The Nyāya philosophers have assigned negative property to an existent object or existent objects, and the word 'only' represents this negative property.

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1. $((p \supset q) \,.\, (q \supset r)) \supset (p \supset r)$
2. $(q \supset r)$
3. $\sim (p \supset r)$

∴4. $\sim (p \supset q)$

[7] This argument may be presented in the following way if a is the cognition of a pot, F is the property of being the cognition of a pot, G is the property of being the ultimate cause of the property residing in the object of a cognition, and H is the property of being the conjunctive cognition of ones:

1. If a is F, then a is G
2. If a is G, then a is H
3. Therefore, if a is F, then a is H

It has been shown that the second premise is true, but the conclusion is false. From this it follows that the first premise is false. Hence H is an *upādhi.*

[8] In this inference the locus is the cognition of a pot, the probans is the property of being the cognition of a pot, and the probandum is the property of being the ultimate cause of the property residing in the pot. It is to be remembered that the supporters of this inference claim that a cognition is to be inferred from the property of being cognised (*jñātatā*) which resides in the object of a cognition. But the property of being cognised which resides in the object is a part of the probandum. Hence the cognition of the probandum presupposes the cognition of the property of being cognised.

The inferential cognition (*anumiti*) of the inference is: The cognition of a pot has the property of being the ultimate cause of the property residing in the pot. The inferential cognition will establish the property of being cognised in the pot by establishing the probandum in the locus of the inference. Hence the proof of the probandum will establish the property of being cognised in the object of a cognition.

It may also be noted that the cognition of the probandum is presupposed by the inferential cognition. But, in this case, the probandum cannot be known unless there is the inferential cognition. For this reason there is an epistemic circularity between the probandum (*sādhya*) and the inferential cognition (*anumiti*).

[9] It is to be remembered that there are three types of *petitio principii* in the Nyāya system. Each of them is either epistemic or ontological. The fallacy of *petitio principii* which occurs here is called '*anyonyāśrya*' ('the locus of each other') as the cognition of the probandum depends upon the inferential cognition and *vice versa*. Hence it is a type of epistemic fallacy.

[10] Since the word '*manas*' is a technical term, it requires some explanation. According to the Nyāya there are five external sense-organs, namely, eyes, ears, nose, tongue, and touch. Each of them is capable of receiving (or perceiving) certain types of objects. For example, colour, shape, size, etc. are sensed or perceived through the eyes. Similarly, different types of odour are experienced through the nose (or olfactory sense-organ), different types of sound through the ears (or auditory sense-organs), different types of tastes or flavours through the tongue (or the gustatory sense-organ); heat and cold, hardness and softness, etc., through skin (or the tactual sense-organ). According to the Nyaya both substances and actions can be perceived through the visual and tactual sense-organs.

In addition to the five external sense-organs the Nyāya has accepted an internal sense-organ called '*manas*.' *Manas*, in the Nyāya system, plays a dual role. In its role as a mental entity (*manastva*) it is a cause, though not the chief instrumental cause (*karaṇa*), of any cognition or any mental state. But in its role as a sense-organ (*indriya*) it is the chief instrumental cause (*karaṇa*) of mental perception of mental entities, such as cognition, desire, etc. In the case of mental perception also it is a cause as a mental entity (*manastva*), although not the chief instrumental cause (*karaṇa*). Hence *manas* as a mental entity is a cause of external perception, internal perception, inferential cognition, analogical cognition, and verbal cognition, but as a sense-organ it is the chief instrumental cause of internal perception only.

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1. If *a* is *F*, then *a* is *G*
2. If *a* is *G*, then *a* is *H*
3. Therefore, if *a* is *F*, then *a* is *H*

It has been shown that the second premise is true, but the conclusion is false. From this it follows that the first premise is false. Hence *H* is an *upādhi*.

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According to the Nyāya, any perceptual cognition, internal or external, is caused by a sense-organ which is considered its chief instrumental cause (*karaṇa*). Hence sense-organness (*indriyatva*) which resides in all the six sense-organs becomes the limitor of the property of being the cause (*kāraṇatāvacchedaka*) of any perceptual cognition.

In terms of the dual role of the *manas* the Nyāya is trying to show the distinction between different types of cognition. In the case of a visual perception of a pot, the visual sense-organ is the chief instrumental cause (*karaṇa*) and *manas* as mental entity (*manastva*) is simply a cause (*kāraṇa*). Similarly, in the case of any other type of cognition of the same pot, such as inferential or verbal, *manas* as a mental entity is simply a cause (*kāraṇa*). Since mental perception is a type of perception, *manas* plays both the roles. As a sense-organ it is the chief instrumental cause (*karana*) and as a mental entity it is a cause (*kāraṇa*).

11 In this context it is to be noted that a cognition and its apprehension (*anubhūti*) do not occur at the same moment, although both of them can be present when we cognise or apprehend a cognition. Similarly, a mental state or event, such as happiness, cannot be equated with its apprehension, and both of them do not take place at the same moment. But a mental state can be present when we apprehend it.

12 It has been accepted by almost all philosophers that a mental state, such as cognition or feeling, does not last for ever or for a long time. Now the question is, how long does it last? The Nyāya view is that a cognition *in general* lasts for two moments. The Nyāya philosophers have also addressed the question: If a cognition lasts for more than two moments, then what would be the argument in favour of it? If it is said that a cognition is destroyed after, say four moments, then we have to answer the question why it is not destroyed after more than four moments. Moreover, we have to answer the question about the cause of its cessation.

In order to answer these questions the Nyāya claims that we should postulate the existence of a cognition as long as it is needed for our explanation. Since there is no need to postulate the existence of mental states *in general* for more than two moments, on the ground of simplicity it is claimed that mental states last for two moments. The first moment is the moment of its origination and the second moment is the moment of its duration. During the second moment another mental state such as cognition or feeling occurs, and the former is destroyed by the latter. Hence a mental state is destroyed by another at the third moment after its origination.

Moreover, according to the Nyāya, two or more mental states do not occur at the same time. Since a *specific* relation of conjunction between *manas* which is atomic in nature and the self is a cause of a mental state, two or more mental states cannot be produced simultaneously. Hence only one mental state occurs at a particular moment. Form this it follows that during the moment of duration of a mental state only one mental state is produced. Hence a mental state is destroyed by one and only one mental state which occurs right after the former.

13 According to the Nyāya a cognition is related to its object by the relation of the property of being the object. Hence the object is related to the cognition by the converse of the property of being the object. Similarly, a cognition is related to the self by the relation of inherence and the self is related to the cognition by the converse of the relation of inherence. The Nyāya emphasises indirect relations which relate many apparently unrelated objects. Hence if *a* is related to *b* by *R* and *b* is related to *c* by *S*, then *a* is related to *c* by *R/S*. If '*R*' stands for a conjunction relation, '*S*' for the inherence relation and '*T*' for the property of being the object relation, then *manas* (internal sense-organ) is related to the self by *R*, it is related to the cognition by *R/Š*, and it is related to the object by *R/Š/T*.

14 In this context it is to be noted that the objects are not the same. If the objects of an inferential cognition are the same as the objects of a mental perception, then the

causal conditions of the mental perception are stronger than the causal conditions of the inferential cognition. Similarly, if the objects of a verbal or analogical cognition are the same as the objects of a mental perception, then the causal conditions of the latter are stronger than the causal conditions of the former. For this reason a mental perception will occur instead of any other type of cognition if they have the same objects. Similarly, with respect to an external or ordinary perception, the causal conditions of it are stronger than those of any other type of cognition.

15 Here 'the cognition of a word' or 'cognised word' refers to an auditory perception of a word in the case of uttered sentences or to a visual perception of it in the case of written sentences. Hence 'the cognition of a word' does not mean 'the cognition of the relation of a word to its referent' or 'the cognition of its referent.'

Understanding the meaning of a sentence or complex expression presupposes the cognition of the relation of a word to its referent. After having cognised the words of a sentence we remember the referents of those words, because of the rule that the cognition of one of the relata of a relation, which is already known to us, gives rise to the memory-cognition of the other relatum. Since the cognition of the relation between a word and its referent is a presupposition for understanding the meaning of a sentence, we remember the referent of a word after cognising it.

According to the Nyāya the meaning of a sentence, as distinct from the meanings of its parts, lies in the relation between the referents of its parts which are sets of expressions. Hence cognising the meaning of a sentence lies in cognising this relation. The chief instrumental cause (*karaṇa*) of understanding the meaning of a sentence is the cognition of the words contained in it, and the operation (*vyāpāra*) is the memory-cognition of the referents of the words.

16 It is to be remembered that according to the Nyāya a cognition lasts for two moments. Hence the continuity of a perception is explained in terms of the occurrence of a series of cognitions of the same sort. If a visual cognition, say a, occurs at t_1, then another visual cognition, say b, will occur at t_2. At t_3 the former will be destroyed by the latter. Hence a will last for two moments only. If one thing is destroyed by another then both must be present at some time. In this case both a and b are present at t_2. This is how the Nyāya explains the occurrence of a continuous perception of an object.

17 This passage also requires some explanation as two epistemologically important remarks have been made in this context:

a. It is claimed that one of the causal conditions of a qualificative (or relational) cognition is the cognition of its qualifier.
b. It is also claimed that the possibility of a qualificative cognition cannot be explained without postulating non-qualificative cognition.

Let us consider the qualificative cognition of a pot, which is atomic. In this cognition there are three ontologically distinct elements, viz., a particular pot which is a substance in the Nyāya ontology, potness which is a universal or class-character (*jāti*), and the relation of inherence which relates the latter to the former. Now it is claimed that the cognition of potness is a cause of the cognition of a pot qualified by potness. But the cognition of the relation of inherence which relates potness to a pot is not a causal condition of it. If the relation is also considered a causal condition, then there would be an infinite regress. For the cognition of the relation would involve the cognition of its two terms (or relata). Hence both the terms would also be causal conditions. Therefore, all the three elements, viz., a pot, potness, and the relation of inherence, would be causal conditions of this qualificative cognition. Since the relation is cognised along with its terms, the cause of the cognition of a pot qualified by potness would be the cognition of a pot qualified by potness. Similarly, the cause of the latter cognition would be another cognition of a pot qualified by

potness, and so on. In order to stop this regress the Nyāya claims that the cognition of a relation is not a causal condition of a qualificative cognition.

Now it may be asked whether the cognition of a pot is a cause of the qualificative cognition of a pot qualified by potness. In reply the Nyāya philosophers claim that the cognition of a pot which is the qualificand in this qualificative cognition is not a cause of it. If it is also treated as a cause, then the inferential cognition from an operation (*parāmarśa*), which does not contain the probandum (*aprasiddha*), would not be possible. Here the technical term '*aprasiddha*' does not mean 'unexampled' or 'empty.' Here it simply means that the probandum is not the object in this operation. Hence the probandum is not known immediately prior to the inferential cognition. In this inference the probandum is an absence and the operation is an agreement in absence type (*vyatirekī-parāmarśa*). In an usual agreement in absence type of invariable concomitance the absence of the probandum occurs. Hence the absence of the probandum occurs in the operation as well. For example, if 'not *G*' is the probandum, then 'not not *G*' occurs in this type of invariable concomitance. But in this case the absence of the probandum would not occur in the invariable concomitance or in the operation. Hence the operation also would not take the usual form. Let us consider the following example:

> The Lake has an absence of smoke, because of the absence of fire.

The agreement in absence type of invariable concomitance would be as follows:

> Wherever there is smoke, there is absence of the absence of fire.

Here the absence of the absence of smoke has not occurred in the rule of invariable concomitance, although both 'smoke' and 'the absence of absence of smoke' refer to the same thing. Here 'smokeness' is the limitor of the property of being the pervaded (*vyāpyatāvacchedaka*). Hence the invariable concomitance would generate the cognition of smoke, not the cognition of the absence of the absence of smoke. If the property of being the absence of the absence of smoke (*dhūmābhāvābhāvatva*) were the limitor, then the cognition of the absence of the absence of smoke would have been generated. For this reason there would not be any cognition of the probandum, namely, the absence of smoke.

The operation would be:

> The lake is qualified by the absence of fire which is the counterpositive of the absence of the absence of fire which is the pervader of smoke.

It has the form:

> a is $\sim G$ which is the counterpositive of $\sim\sim G$ which is the pervader of F.

In this operation the absence of smoke which is the probandum has not occurred. For this reason it is called '*aprasiddha sādhyaka parāmarśa*' ('the operation in which the probandum has not occurred'). As regards the inferential cognition, there are two alternatives, namely, (a) The lake has the absence of smoke. (b) The absence of smoke characterises the lake.

Since the absence of smoke has not occurred in the operation, the inferential cognition cannot be (a). This is due to the fact that the cognition of the qualifier (*viśeṣaṇa*) is a cause of qualificative cognition (*viśiṣṭa-jñāna*). If it is claimed that the cognition of the qualificand is also a cause of qualificative cognition, then (b) also becomes impossible as the probandum has not occurred in the operation. Hence the possibility of any inferential cognition will be ruled out. But the Nyāya philosophers

claim that inferential cognitions from this type of operations do occur. Hence if we accept the view that the cognition of the qualificand is not a cause of the qualificative cognition, then the inferential cognition in the above example would be (b), not (a). Thereby we do not contradict the view that the cognition of the qualifier is a cause of a qualificative cognition.

Now it may be asked, why should we accept the thesis that the cognition of the qualifier is a cause of qualificative cognition?

On this point the Nyāya claims that the cognition of the absence of something presupposes the cognition of the negatum, and the latter is a cause of the former. In other words, the cognition of *F* is a cause of the cognition of not *F*. Moreover, since this view has been accepted by other schools of Indian Philosophy, it remains a non-controversial thesis.

Now the question is whether in all other cases also this rule holds good. Hence we can ask the question whether the cognition of potness is a cause of the cognition of a pot qualified by potness. On this point there is a disagreement among the schools of Indian philosophy. Some of the schools, such as Mīmāṃsā, do not subscribe to the view that the cognition of the qualifier is a cause of a qualificative cognition. But the Nyāya philosophers subscribe to this view. Hence those who are not committed to either of these views will have doubt about this thesis. Since all the schools of Indian philosophy have accepted the cognition of the qualifier as a cause of the cognition of an absence, it may be inferred that in other cases as well the cognition of the qualifier is a cause of a cognition of a qualified object. Hence the cognition of potness may be considered as a cause of the cognition of a pot qualified by potness. But the cognition of potness, which is not a qualified object, is non-qualificative (*nirvikalpaka*) in nature.

Now the question is whether the perceptual cognition of a pot qualified by potness in the relation of inherence presupposes the cognition of potness *only*.

On this point the Nyāya philosophers claim that the perceptual cognition of a relation presupposes the cognition of its relata. Hence the perceptual cognition of a pot qualified by potness in the relation of inherence presupposes the cognition of both a pot and potness. But they are cognised in a non-qualificative perceptual cognition.

Now it may be asked whether the relation of inherence as such, not as relating one entity to another, can be an object of a non-qualificative perception in addition to a pot and potness.

The Navya-Nyāya philosophers claim that if the relation of inherence is also an object of non-qualificative perception, then, like potness, it would also be a qualifier of the qualificative cognition which follows the non-qualificative cognition. Since the relation is not a qualifier in this qualificative cognition, there is no reason to postulate it as an object of a non-qualificative cognition.

As regards a pot, the Navya-Nyāya philosophers claim that it is not a qualifier, although it is an object of a non-qualificative cognition. This is due to the fact that whenever it is a qualifier, it is qualified by a property. In other words, it appears under the mode of some presentation when it is a qualifier in a qualificative cognition. Hence a pot as such is an object of non-qualificative cognition, but is not a qualifier in a qualificative cognition.

Since the non-qualificative cognition appears in the subsequent arguments of the author, let us enumerate some of the distinctive features of it.

(a) First of all, only the qualificand and the qualifier of an atomic qualificative cognition are cognised in a non-qualificative perceptual cognition, but not as a qualificand or as a qualifier. Hence they are cognised as such. The relation between the qualificand and the qualifier is not cognised in a non-qualificative cognition.

(b) Since there is no cognition or mental perception of a non-qualificative cognition, it is to be established by an inference. Since a qualificative cognition presupposes the cognition of the ultimate qualificand and the qualifier, we postulate or infer the non-qualificative cognition in which these elements are cognised. Hence, in the case of the cognition of a pot qualified by potness, we infer the non-qualificative cognition of both the pot and potness as such.

(c) A non-qualificative cognition of an entity is not directly a cause for the use of it. Only a qualificative cognition of it is considered a cause for its use. A qualificative cognition of a pot qualified by potness is a cause for the use of a pot, but indirectly the non-qualificative cognition of a pot and potness is related to the use of it. Hence it may be considered as an *indirect* cause for the use of an object.

(d) The objects of a non-qualificative cognition cannot be cognised by expressions. In other words, a non-qualificative cognition cannot be generated by an expression. For example, the expression 'a pot' or simply 'pot' will not generate a cognition of a pot which is not qualified by a property. Similarly, the word 'potness' will not generate simply the cognition of potness. According to the Nyāya philosophers the word 'pot' will generate the cognition of a pot presented under the mode of potness. Similarly, the word 'potness' will generate the cognition of potness presented under the mode of the property of being present in each and every pot and not in anything but a pot. In other words, it is something which is present in pots and pots only. Hence the cognition generated by an expression will not be the same as a non-qualificative cognition. This is due to the fact that the former will contain a qualificand-qualifier relation, but not the latter.

From the fact that a non-qualificative cognition cannot be generated by an expression, one should not conclude that the objects of a non-qualificative cognition are not nameable. Since everything is nameable in the Nyāya system, the objects of a non-qualificative cognition are also nameable, but they cannot be named when the non-qualificative cognition occurs. Since the existence of a non-qualificative cognition is established by an inference, its objects can be named when it is being established. But the cognitions generated by those names will not be non-qualificative.

(e) As regards the validity (*pramātva*) or the truth of a non-qualificative cognition, the Navya-Nyāya philosophers claim that it is neither valid nor invalid. This is due to the fact that both valid and invalid cognitions presuppose qualificand-qualifier relations. Since there is no qualificand-qualifier relation in a non-qualificative cognition, it is outside the scope of both validity and invalidity.

(f) A non-qualificative cognition is always perceptual. It cannot be inferential, analogical, or verbal. Since it is a cause of our perceptual qualificative cognition, it is always immediately prior to a perceptual qualificative cognition. When an external sense-organ is related to its objects, the initial cognition which is due to this contact is non-qualificative. Thereafter a qualificative cognition is generated.

(g) As regards the relation of a non-qualificative cognition to its object, the Nyāya claims that it cannot be any of the relations present in a qualificative cognition. Since relations such as the property of being the qualificand (*viśeṣyatā*), the property of being the qualifier (*viśeṣaṇatā*), and the property of being the relation (*saṃsargatā*) are present in a qualificative cognition, none of them can hold good in a non-qualificative cognition. Hence we can simply say the relation of a non-qualificative cognition to its object is different from those which are present in a qualificative cognition.

(h) Since a non-qualificative cognition has been postulated to give an account of a qualificative cognition and since it is an inferred entity, it cannot be perceived by the internal sense-organ (*manas*). Hence it cannot be introspected. From this it does not follow that it is not perceptual. Since it has been postulated to

give an account of a qualificative perceptual cognition, it is also considered as perceptual in character, not inferential, analogical, or verbal. It is analogous to the apprehension of sense-data in contemporary epistemology, which is postulated to give an account of the perception of a physical object. A comparison between the non-qualificative cognition of the Nyāya and the apprehension of sense-data might throw some further light on both the theories. But it is outside the scope of this explanatory note.

[18] Let us consider a as the first (or primary) qualificative cognition, F as cognitionhood, o as object, a_o as the object of a, b as another qualificative cognition, b_o as the object of b, c as self, and $t_1 \ldots t_n$ as moments of time.

The view of Udayana may be presented in the following way:

(1) a occurs at t_1
(2) The non-qualificative cognition of a and F occurs at t_2
(3) b occurs at t_3, and $a_o = b_o$
(4) The cognition of b qualified by F occurs at t_4
(5) The cognition of c qualified by b which is qualified by F occurs at t_5

Hence the object of the non-qualificative cognition is the first (or primary) qualificative cognition, but the object of the second order cognition is another qualificative cognition, the object of which is the same as the object of the first qualificative cognition. One of the instrumental causes of (5) is (4). The reference to the self occurs in (5), not in (4). Hence (5) is the second order cognition.

[19] According to Udayana the qualificand of a perceptual cognition is present at the time of the occurrence of the perceptual cognition. The argument in favour of Udayana might be that a perception not only reveals its object i.e., the qualificand, but also the property of being present (*vartamānakālinatva*) which qualifies the object of perception. Hence the qualificand of a perception is present when the perception takes place. But Vardhamāna does not subscribe to this view. He thinks that the qualificand of a perceptual cognition is just a cause of it. Since there is no need for a cause to be present at the time of the occurrence of the effect, there is no need for the qualificand to be present when the perceptual cognition occurs.

[20] Let a be the first (or primary) qualificative cognition, b the self, F cognitionhood, and $t_1 \ldots t_n$ moments of time. The view of Vardhamāna may be represented in the following way:

(1) a occurs at t_1
(2) The non-qualificative perception of a and F occurs at t_2
(3) The perception of a qualified by F occurs at t_3
(4) The cognition of b qualified by a, which is qualified by F, occurs at t_4

Hence the second order cognition takes place at t_4.

[21] Let a be the cognition of a pot, b the non-qualificative cognition, F cognitionhood, and $t_1 \ldots t_n$ moments of time. The second view of Vardhamāna may be represented in the following way:

(1) a occurs at t_1
(2) b, which has both a and F as objects, occurs at t_2
(3) The cognition of b qualified by F occurs at t_3

It may be noted that b is not fully non-qualificative. It is non-qualificative with respect to F, but qualificative with respect to a.

[22] In this context it is to be noted that in the second order cognition the qualificand is the non-qualificative cognition, which is qualified by the property of having a pot as its object. One of the objects of this non-qualificative cognition is the initial qualificative cognition which has a pot as its object. Now the question is, how can

this non-qualificative cognition be qualified by the property of having a pot as its object?

On this point, Vardhamāna claims that if x is the object of the cognition, say a, and a is the object of the cognition, say b, then x is the object of the cognition b. Hence if a has the property of having x as its object, then b also has the property of having x as its object. Therefore, in this case, the non-qualificative cognition is also qualified by the property of having a pot as its object.

23 Here the author claims that the non-qualificative cognition which occurs just after the primary qualificative cognition may itself be taken as the second order cognition of the primary qualificative cognition which has a pot as its object, although the latter is not being revealed as qualified by cognitionhood. Hence only two cognitions will occur.

First, there will be the qualificative cognition of a pot. Second, there will be the non-qualificative cognition which has the cognition of a pot i.e., the first qualificative cognition and cognitionhood as its objects.

Since the second cognition is not non-qualificative with respect to the former object, it can itself be considered as the second order cognition of the initial (or primary) qualificative cognition.

24 Here the author has mentioned two types of causal conditions such that either will produce an invalid perceptual cognition. In the case of a visual perception of an object, distance (*dūratva*) is considered a defect (*doṣa*), but the weakness of the visual sense-organ is considered an inappropriate causal condition. Now the question is how to classify these conditions of an invalid perceptual cognition.

It is to be noted that there are two types of causal conditions for the validity of a perceptual cognition. One type of causal condition is positive, while the other type is negative. For example, in the case of a visual perception, the visual sense-organ or light is a positive causal condition, but the absence of distance is a negative causal condition. When both the types of causal conditions are present, the visual perception will be valid (*pramā*).

A defect (*doṣa*) is the negatum of a negative causal condition of a valid cognition, but an inappropriate causal condition (*kāraṇavaiguṇya*) is the weakness of a positive causal condition of a valid cognition. Hence, in the case of a visual perception, if distance (*dūratva*) is present, the perceptual cognition becomes invalid (*apramā*). Similarly, if the visual sense-organ is weak or there is insufficient light, then also the perceptual cognition becomes invalid (*apramā*). Therefore, a perceptual cognition could be invalid due to either of these two types of causal conditions.

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About the book

This book is not only a commentary on Pandit Visvabandhu Tarkatīrtha's article on *anuvyavasāya* (cognition of cognition or knowledge of knowledge) but also contains explanations of several concepts which are indispensable for understanding Indian philosophy, especially the Nyāya system. The book addresses the question : How do we cognize a cognition? (How do we know that we know?)

In addition to a critical examination of 3 views on this subject, the book discusses other topics such as types of cognition, meaning, causality, perception, inference, and fallacies.

This book will be very useful to students of Indian philosophy as well as to professionals in this field for understanding some of the key concepts of logic, epistemology, and philosophy of language. Moreover, these concepts and techniques may be used for solving some of the problems of Western philosophy.

Pandit Visvabandhu Tarkatīrtha, one of the few distinguished scholars of Indian philosophy, is not only well-versed in Navya-Nyāya, but also in Vedānta, especially the Advaita Vedānta. After having taught for more than fifty years at several universities and colleges he is now a Visiting Professor at the Ramakrishna Mission Institute of Culture. A creative scholar, he has published several books and articles on Navya-Nyāya and Vedānta in Sanskrit as well as in Bengali.

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